

A REVIEW OF THE MURIDAE
(ORDER RODENTIA) OF UGANDA



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INTRODUCTION

ALTHOUGH Uganda has an exceptionally rich mammal fauna, there has up to the present time been very little work published on the systematics and biology of these animals. Apparently, the only check list of Uganda mammals was that given by Oldfield Thomas in 1902 and published in Sir Harry Johnston's *The Uganda Protectorate*. The present work restricts itself to a review of the existing information on the murid rodents of Uganda. Thomas gave sixteen species occurring in the same general area (Uganda's boundaries have been changed since 1902) whereas the present list numbers forty-four. Even so, it is uncertain that this list is complete particularly in view of the fact that as recently as 1961 a new genus (*Delanymys*) was discovered in the south-west of the country and in 1963 a previously unrecorded genus (*Zelotomys*) was collected in Ankole. The main sources of information have been the collections in the British Museum (Natural History), the Coryndon Museum, Nairobi, published and unpublished literature and the collections made by Delany in 1961 and 1963. Of the unpublished, Hopkins manuscript entitled *The Known Wild Rodents of Uganda* has been particularly useful.

Descriptions of genera and species are given with keys to their identification. As we found it possible to identify almost every species without reference to cranial morphology or internal anatomy it has been decided to base the descriptions entirely on external characters. Such features as grooving of the incisors are included as their examination does not necessitate dissecting the animal in any way. Only in the identification of the species of *Otomys* has it been necessary to refer to other than external characters. All the measurements given in the text have been obtained from animals collected in Uganda. Animals that from their external measurements are obviously very young have been omitted.

The systematics include the reference to the original description of the genus and the name of the type species. The reference to the original description of each species is given together with the type locality. If the latter is outside Uganda the location follows the place name ; if it is in Uganda then the location appears in the

gazetteer. Synonyms based on material collected in Uganda are also included. We have not attempted any revisions of the systematics although in several cases they are clearly required. Subgeneric names have been avoided. Whether forms such as *Grammomys*, *Praomys*, *Myomys*, *Mastomys* or *Hylomyscus* are genera or subgenera seems a matter of constant debate. We have given them generic status in accordance with fairly general usage, but we fully appreciate that future and more extensive studies may show them to be of lower taxonomic rank. Furthermore, the paucity of information on the variation shown by individual species has prompted us to omit any reference to subspecies. Only very much more collecting from the whole country can reveal the nature of the subspecies, clines and variability that may be present.

In the following account we have used Simpson's (1945) definition of the Muridae. His classification of the Myomorph rodents recognizes three superfamilies. They are, the Muroidea which includes the rats, mice, voles, gerbils and lemmings; the Gliroidea containing the dormice, and the Dipodoidea containing the jumping "mice" and the jerboas. None of the third group occur in Uganda whilst the Gliroidea are represented by the genus *Graphiurus* Smuts. The dormice are easily recognized by their small size and very bushy tail; although normally grey in colour, brown and buff forms also occur.

The Muroidea are split into four families; the Muridae which are being considered in the present account, the Spalacidae or mole rats of the Mediterranean region, the Rhizomyidae which has only one species recorded from Uganda (*Tachyoryctes ibeanus* Thomas) and the Cricetidae in which group are included the gerbils. *Tachyoryctes*, one of the African mole rats, is easily recognized and not readily confused with the murids. It is highly adapted for burrowing. The limbs are very short and the front legs broad and slightly flattened for digging; external ears are almost completely absent and the eyes are very small. The fur is long, soft and dense and usually brown to black in colour. The tail is very short.

The gerbils are the forms most likely to be confused with the murids and can only be separated from them by a combination of several characters. The hind limbs are long in proportion to the fore limbs (not so obvious in *Tatera*), the feet have long claws, the fur is soft and dorsally sandy or buff in colour. The belly fur and the backs of the hands and feet are pure white and a patch of short white hairs occurs behind the ear. The tail is long and hairy and often tufted. The upper incisors are grooved but on occasion the grooving is so shallow as to make it hardly perceptible. Two genera (*Tatera* and *Taterillus*) have been recorded from Uganda.

Petter (1964) has recently suggested that the genera *Cricetomys* and *Saccostomus* should be placed in the Cricetidae.

In the sections on distribution the locality from which animals have been obtained is given with the District except in Buganda where the reference is to the Kingdom. The latitude and longitude of each locality appears in the gazetteer. In addition the distributions have been mapped; the location of Buganda and the Districts outside this Kingdom are shown in Text-fig. 1. The distribution records are undoubtedly inadequate as almost every species probably has a wider and more continuous distribution than is suggested from the maps. This can only be remedied by

considerably more collecting. Some distribution records are very vague and may refer to no more than a District; in which case the District is given in quotation marks. Various parts of Uganda appear to have been more rigorously collected than others with particularly large gaps occurring in Acholi, Busoga, east Toro and Ankole and in the north along the length of the Sudan border.

There is not a great deal of information available on the biology and breeding. Some data have been included from outside Uganda. However, there seemed little reason for including times of breeding of animals outside the country as this pheno-



FIG. 1. Map of Uganda showing the location of the Kingdom of Buganda and the Districts outside the Kingdom (underlined).

menon is probably influenced by local climatic conditions. As these vary considerably from one part of Africa to another (as well as in Uganda itself) the inclusion of times of breeding from elsewhere could give an erroneous picture of when breeding took place in Uganda.

We are particularly indebted for the very considerable help Mr. R. W. Hayman of the British Museum (Natural History) has given us with this work. We are grateful to the Royal Geographical Society for assistance in tracing some of the localities. The collecting trips made by M. J. D. in 1961 and 1963 were financed by grants from the Royal Society, the Percy Sladen Memorial Fund and the University of Southampton.

ABBREVIATIONS

The following abbreviations have been used in the text :—

cm.	centimetres	Mt.	Mount
Co.	County	N.	North
E.	East	Q.E.P.	Queen Elizabeth National Park
g.	grams	S.	South
h. & b.	head-and-body length	strm.	stream
h. f.	hind foot length	W.	West
meas.	measured	wt.	weight
M.N.P.	Murchison Falls National Park	♂	male
m.	metre(s)	♀	female
mm.	millimetres		

Months have been abbreviated to their first three letters.

The number of records of the number of foetuses have been indicated in brackets; thus (2 × 1) signifies that two animals each had one foetus.

KEY TO THE GENERA OF UGANDA MURIDS

- 1 Large size (h. & b. 300–450 mm.). Long tail, distal portion white, proximal portion dark **CRICETOMYS** (p. 338)
Smaller with tail not showing this pattern of coloration 2
- 2 Dorsal fur either spiny or very bristly 3
Dorsal fur neither spiny nor very bristly 6
- 3 Fur modified into distinct spines along dorsal surface **ACOMYS** (p. 334)
Fur bristly but not spiny 4
- 4 Dorsal fur chestnut, bristly and stiff; tail about 1.5 times h. & b. **DEOMYS** (p. 343)
Dorsal fur stiff and brush-like, reddish-brown; tail approximately equal to or less than h. & b. 5
- 5 Backs of hands and feet brown or black; belly red-brown or buff **LOPHUROMYS** (p. 331)
Backs of hands and feet white, belly white **URANOMYS** (p. 336)
- 6 Either upper and lower incisors grooved or just the upper ones 7
Neither upper nor lower incisors grooved 11
- 7 Both upper and lower incisors deeply grooved; fur long and soft; tail appreciably shorter than h. & b. **OTOMYS** (p. 345)
Upper incisors at least faintly grooved; lower incisors not grooved 8

- 8 Large forms (h. & b. over 100 mm.) 9
 Small forms (h. & b. under 100 mm.) 10
- 9 Fur coarse and harsh; belly hairs dirty yellow-grey **PELOMYS** (p. 310)
 Fur thick and soft; belly hairs white at the tips and sharply demarcated from those
 at the flanks **MYLOMYS** (p. 305)
- 10 Tail very short, less than 40 mm. **STEATOMYS** (p. 342)
 Tail appreciably longer, over 60 mm. **DENDROMYS** (p. 339)
- 11 With red tip to snout in sharp contrast to rest of body **OENOMYS** (p. 305)
 Colour of snout neither bright red nor in sharp contrast with rest of body 12
- 12 Fur with metallic iridescent lustre 13
 Fur without metallic iridescent lustre 14
- 13 Fur rough and shaggy looking **DASYMYS** (p. 307)
 Fur closely applied to the body **AETHOMYS** (p. 317)
- 14 With at least one dorsal stripe 15
 Without stripes 17
- 15 A single black mid-dorsal stripe **HYBOMYS** (p. 316)
 Several stripes present 16
- 16 Four black stripes along back; mid-dorsal line pale **RHABDOMYS** (p. 315)
 Numerous pale stripes along back (may be composed of lines of spots); mid-dorsal
 line dark **LEMNISCOMYS** (p. 313)
- 17 Tail considerably longer than h. & b. 18
 Tail approximately equal to h. & b. or shorter 23
- 18 Tip of tail with small but distinct pencil of hairs 19
 Tip of tail without pencil of hairs 20
- 19 Hind foot relatively broad **THAMNOMYS** (p. 302)
 Hind foot not broadened **GRAMMOMYS** (p. 304)
- 20 Very small (h. & b. less than 60 mm.); tail relatively long (about 100 mm.)
 **DELANYMYS** (p. 343)
 H. & b. over 60 mm.; tail relatively not so long 21
- 21 Medium size (h. & b. 105 to 138 mm.) **PRAOMYS** (p. 321)
 Smaller size (h. & b. 71 to 107 mm.) 22
- 22 Hairs of belly with white tips and grey bases **HYLOMYSCUS** (p. 322)
 Hairs of belly pure white **MYOMYS** (p. 324)
- 23 Medium size (h. & b. 127 to 160 mm.); tail $\frac{1}{3}$ to $\frac{1}{2}$ h. & b. **SACCOSTOMUS** (p. 337)
 Small or medium size; if the latter tail is not short 24
- 24 Hairs coarse, strongly annulated black on buff, producing a "pepper and salt" effect;
 tail shorter than h. & b. but never less than $\frac{2}{3}$ h. & b. length; ears hairy
 **ARVICANTHIS** (p. 309)
 Without "pepper and salt" effect 25
- 25 Medium size (h. & b. 133 to 171 mm.); tail about h. & b. length; hind feet very large
 (35 to 40 mm.) **MALACOMYS** (p. 327)
 Variable size but with appreciably smaller hind feet 26
- 26 Upper incisors pro-odont (projecting forwards) **ZELOTOMYS** (p. 327)
 Upper incisors not pro-odont 27
- 27 Small size (h. & b. less than 93 mm.) **MUS** (p. 329)
 Larger size (h. & b. over 90 mm.) 28
- 28 Texture of fur very soft; flanks brown, belly grey with clear demarcation between the
 two **MASTOMYS** (p. 325)
 Texture of fur coarse, dorsally brown to grey with a gradual transition in colour
 from back to belly with no sharp line of demarcation between flanks and belly
 **RATTUS** (p. 319)

SYSTEMATIC ACCOUNT

Family **MURIDAE** Gray

1821. Muridae Gray, *London Med. Reposit.* **15** : 303.

Subfamily **MURINAE** Murray

1866. Murinae Murray, *The Geographic Distribution of Mammals* : 359.

Genus **THAMNOMYS** Thomas. Thicket Rats

1907. *Thamnomys* Thomas, *Ann. Mag. nat. Hist.*, (7) **19** : 121. Genotype *Thamnomys venustus* Thomas.

The genera *Thamnomys* and *Grammomys* are very similar. The tail is very long in both and with a pencil of hairs at its tip. The same is true of the gerbils but they can be separated from these two genera on other characters (p. 298). The hind foot of *Thamnomys* is broader than in *Grammomys*. Examination of the Uganda material shows differences in the colour of the belly fur in the two genera. In *Grammomys* the belly is pure white whilst in *Thamnomys* it is whitish washed with buff, or greyish with white tips. This character has not been found to hold good for all the specimens examined from other parts of Africa. We have recognized *T. kempi* as conspecific with *T. venustus*.

Hairs of belly white to bases, washed with buff	<i>T. rutilans</i>
Hairs of belly grey with white tips	<i>T. venustus</i>

Thamnomys rutilans (Peters)

1876. *Mus rutilans* Peters, *Monatsb. K. preuss. Akad. Wiss., Berlin* **1876** : 478. Lambarene, Gaboon [0° 45' S. 10° 15' E.].

DESCRIPTION. Only specimen examined from Uganda has a rich suffusion of buff to the white hairs of the belly.

DISTRIBUTION. Zika Forest, Buganda. Text-fig. 2.

MEASUREMENTS. One ♂ h. & b. 145 mm. ; tail 172 mm. ; h. f. 25 mm. ; ear 17 mm. ; weight 54 g.

BREEDING. No information available.

HABITAT. Typically a forest species.

BIOLOGY. No information available.

Thamnomys venustus Thomas

1907. *Thamnomys venustus* Thomas, *Ann. Mag. nat. Hist.*, (7) **19** : 122. Mubuku Valley, Toro.

1911. *Thamnomys kempi* Dollman, *Ann. Mag. nat. Hist.*, (8) **8** : 658. Buhamba, near Lake Kivu, Congo [1° 32' S. 29° 19' E.].

DESCRIPTION. Tips of belly hairs white, bases grey. Fur thicker and softer texture than *T. rutilans*.

DISTRIBUTION. Echuya Forest, Impenetrable Forest, Kigezi; Mihunga Swamp, Mubuku Valley, Toro. Text-fig. 2.

MEASUREMENTS. One ♂ h. & b. 125 mm.; tail 181 mm.; h. f. 25 mm.; ear 18 mm. Three ♀ h. & b. 151 mm., 131 mm., 141 mm.; tail 183 mm., 162 mm., 184 mm.; h. f. 26 mm., 26 mm., 28 mm.; ear 19 mm., 20 mm., 19 mm.; weights 66 g., 51 g., 56 g.

BREEDING. No information available.



FIG. 2. Distribution of *Thamnomys rutilans*, *T. venustus* and *Grammomyes dolichurus*.

HABITAT. High altitude (including moist montane) forest.

BIOLOGY. Arboreal. Nocturnal (Allen & Loveridge, 1942).

Genus **GRAMMOMYS** Thomas. Tree Rats

1915. *Grammomys* Thomas, *Ann. Mag. nat. Hist.*, (8) 16: 150. Genotype, by original designation, *Mus dolichurus* Smuts.

Separated, on external characters, from *Thamnomys* on the narrower hind foot. Long tail with a pencil of hairs at its tip. In the Uganda specimens examined the belly hairs are pure white without a buff suffusion. The dorsal fur is brown to grey-brown with, in some specimens, a buff line where flank and belly fur meet. Allen (1939) includes *Grammomys* as a subgenus of *Thamnomys*.

Grammomys dolichurus (Smuts)

1832. *Mus dolichurus* Smuts, *Enumerat. Mamm. Capens.*: 38. Type locality given as "near Cape Town", South Africa but this is of uncertain accuracy (see Ellerman, Morrison-Scott & Hayman, 1953).

1907. *Thamnomys dryas* Thomas, *Ann. Mag. nat. Hist.*, (7) 19: 123. Mubuku Valley, Toro.

1907. *Thamnomys macmillani* Wroughton, *Ann. Mag. nat. Hist.*, (7) 20: 504. Wouida, north of Lake Rudolf, Ethiopia.

1908. *Thamnomys surdaster* Thomas & Wroughton, *Proc. zool. Soc. Lond.* 1908: 550. Zomba, Malawi [15° 22' S. 35° 22' E.].

1910. *Thamnomys discolor* Thomas, *Ann. Mag. nat. Hist.*, (8) 5: 283. Kakamega Forest, Kisumu, Kenya [0° 19' N. 34° 51' E.].

DESCRIPTION. As for genus.

DISTRIBUTION. Maramagambo Forest, Ankole; Kalule, Kampala, Lialo, Nkyanuna, Buganda; Salalira, "south Bugisu", Bugisu; "Bukedi"; Kotido, Lotome, Moroto, Karamoja; Echuya Forest, Kumba, Nyalusanje, Kigezi; Serere, Teso; Ilumia, Mihunga, Mubuku Valley, Mweya, Wasa River, Toro; Rhino Camp, West Nile. Text-fig. 2.

MEASUREMENTS. Three ♂ h. & b. 120 mm., 98 mm., 126 mm.; tail 165 mm., 134 mm., 183 mm.; h. f. 23 mm., 22 mm., 27 mm.; ear 15 mm., 14 mm., 17 mm.; weights ?, 24 g., 51 g. ♀ h. & b. 113.9 mm. (8 meas., range 99 to 130 mm.); tail 173.7 mm. (8 meas., range 150 to 205 mm.); h. f. 23.6 mm. (8 meas., range 22 to 25 mm.); ear 16.2 mm. (8 meas., range 15 to 20 mm.); weight 41.2 g. (5 weighed, range 33 to 53 g.).

BREEDING. Foetuses (1 × 3), Mweya; (2 × 3) Moroto, Nov. In Zambia (3 × 4) (Ansell, 1960). Watson (1950) reports usually 3 young in a litter.

HABITAT. Scrub, bush and various types of forest.

BIOLOGY. Arboreal; nocturnal. Build nests in bushes and trees. Outer part of nest of coarse grass with a lining of finely chewed grass. Brown house snake (*Boaedon lineatus*) reported to prey on it (Allen & Loveridge, 1942). Vegetarian, including seeds.

Genus *OENOMYS* Thomas. Rusty-nosed Rats

1904. *Oenomys* Thomas, *Ann. Mag. nat. Hist.*, (7) **13** : 416. Genotype, by original designation, *Mus hypoxanthus* Pucheran.

Medium sized rats easily recognized by their rusty-red nose. Upper surface brown or grey often with tinge of olive, this colour produced by the hairs having long buff or rufous tips and dark grey bases. Rump suffused with rusty-red colour. Backs of hands and feet pale brown. Flanks paler than back sharply demarcated from white of underside. Belly hairs white to roots. Tail grey-brown above, much paler below.

Oenomys hypoxanthus (Pucheran)

1855. *Mus hypoxanthus* Pucheran, *Rev. Mag. Zool.* **2** : 206. Gaboon.

1910. *Oenomys bacchante* Thomas and Wroughton, *Trans. zool. Soc. Lond.* **19** : 509. Mubuku Valley, Toro.

DESCRIPTION. As for genus.

DISTRIBUTION. Kampala, Buganda ; Bubungi, Buyobo, Sipi, Bugisu ; Fadjao, Bunyoro ; Impenetrable Forest, Kigezi ; Benet, Sebei ; Bundibugyo, Bundimali, Ilumia, Kilembe, Kyatwa, Mihunga, Mubuku Valley, Sara, Toro. Text-fig. 3.

MEASUREMENTS. H. & b. ♂ 142.4 mm. (11 meas., range 105 to 167 mm.), ♀ 143.2 mm. (13 meas., range 131 to 159 mm.) ; tail ♂ 172.6 mm. (11 meas., range 150 to 205 mm.), ♀ 170.5 mm. (13 meas., range 135 to 187 mm.) ; h. f. ♂ 29.9 mm. (11 meas., range 24 to 33 mm.), ♀ 29.7 mm. (13 meas., range 28.5 to 31 mm.) ; ear ♂ 19.2 mm. (11 meas., range 18 to 21 mm.), ♀ 18.8 mm. (13 meas., range 17 to 21 mm.) ; weight ♂ 70 g. 90 g., ♀ 57 g., 76 g. (only four weighed).

BREEDING. Foetuses (5 × 3, 4 × 4) Kampala (Hopkins MS.) ; (1 × 3) in Congo (Misonne, 1963). Litter of three blind nestlings in Congo (Allen & Loveridge, 1942).

HABITAT. Tall grass bordering marshes and streams ; swamps amongst *Cyperus latifolius* and fern.

BIOLOGY. Climbs easily and makes nests in grass.

Genus *MYLOMYS* Thomas

1906. *Mylomys* Thomas, *Ann. Mag. nat. Hist.*, (7) **18** : 224. Genotype, by original designation, *Mylomys cunninghamei* Thomas.

Medium sized rats with the dorsal surface a bright olive-gold, heavily lined with black ; flanks with less black but sharply demarcated from the white of the underside. Tail generally a little shorter than the head-and-body length, black above, yellow buff or whitish below. Grooved upper incisors.

Mylomys cunninghamei Thomas

1906. *Mylomys cunninghamei* Thomas, *Ann. Mag. nat. Hist.*, (7) **18** : 225. East of Aberdare Mountains, Kenya [approximately 0°-1° S. 36° 45' E.].

1915. *Mylomys lutescens* Thomas, *Ann. Mag. nat. Hist.*, (8) **16** : 149. Nyalasanje, Kigezi.

DESCRIPTION. As for genus.

DISTRIBUTION. Paraa, Acholi; Lutoto, north of Maramagambo Forest, Ankole; Kampala, Mabira Forest, Buganda; Walasi Bugisu; Budama, Kidoko, Mulanda, Bukedi; Kanaba, Kiduha, Nyalusanje, Kigezi; Serere, Teso; Butiti, Crater Track, Toro. Text-fig. 3.

MEASUREMENTS. H. & b. ♂ 154.3 mm. (20 meas., range 122 to 183 mm.), ♀ 153.1 mm. (21 meas., range 125 to 180 mm.); tail ♂ 141.4 mm. (20 meas., 104 to 180 mm.), ♀ 142.2 mm. (20 meas., range 119 to 156 mm.); h. f. ♂ 33.2 mm. (20 meas., range 29 to 36 mm.), ♀ 32.4 mm. (21 meas., range 30 to 35 mm.); ear ♂ 18.5 mm.



FIG. 3. Distribution of *Oenomys hypoxanthus* and *Mylomys cunninghamiei*.

(17 meas., range 14 to 22 mm.), ♀ 18.8 mm. (20 meas., range 15 to 22 mm.); weight ♂ 103.1 g. (18 weighed, range 50 to 165 g.), ♀ 99.4 g. (20 weighed, range 46 to 160 g.).

BREEDING. Foetuses (1 × 3, wt. less than 1 g.), (1 × 5, wt. 18 g.) Jul. Crater Track. (1 × 5, wt. 1 g.), (1 × 4, wt. 4 g.) Aug. north of Maramagambo Forest. (1 × 3), (1 × 4 wt. 1 g.) Aug. Lutoto.

HABITAT. Typically thick grassland, heath and scrub.

BIOLOGY. Diurnal ? Herbivorous, eating grass leaves and stems.

Genus *DASYMYS* Peters. Shaggy Swamp Rats

1875. *Dasymys* Peters, *Mber. preuss. Akad. Wiss. Berl.* 1875 : 12. Genotype, by monotypy, *Dasymys gueinzii* Peters = *Mus incomtus* Sundevall.

Moderate sized rats with long, soft and untidy fur and sparsely haired tail. The animal has a flattened appearance. Dorsal hairs inconspicuously annulated black and buff giving the general effect of darkish grey tinged with brown or greyish brown. Backs of the hands and feet dark coloured, almost naked. Underside slaty grey with a greater or lesser amount of whitish admixture due to the pale tips of the hairs. Eyes small. Ears hairy. Ellerman (1941) and Hopkins (MS.) believe there is only one species of *Dasymys* in Uganda.

Dasymys incomtus (Sundevall)

1846. *Mus incomtus* Sundevall, *Öfvers. Vetensk. Akad. Förh. Stockh.* 3 : 120. "E. Caffraria prope Port Natal" (= Durban, Natal) [29° 53' S. 31° 00' E.].

1875. *Dasymys gueinzii* Peters, *Mber. preuss. Akad. Wiss. Berl.* 1875 : 13. Interior of "Port Natal" (= Durban, Natal).

1906. *Dasymys medius* Thomas, *Ann. Mag. nat. Hist.*, (7) 18 : 143. Mubuku Valley, Toro.

1906. *Dasymys montanus* Thomas, *Ann. Mag. nat. Hist.*, (7) 18 : 143. Mubuku Valley, Toro.

1911. *Dasymys orthos* Heller, *Smithson, misc. Coll.* 56 : 13. Butiaba, Bunyoro.

DESCRIPTION. As for genus.

DISTRIBUTION. Asuya, Gulu, Acholi ; near Kagambah, Lutoto, Ankole ; Kaku-miro, Kampala, Mengo, Buganda ; Budama, Bukedi ; Butiaba, Bunyoro ; Echuya Swamp, Ingezi, Kiduha, Kumba, Nyalasanji, Kigezi ; Moyo, Madi ; Amuria, Serere, Teso ; Mihunga, Mubuku Valley, Toro ; Rhino Camp, West Nile. Text-fig. 4.

MEASUREMENTS. H. & b. ♂ 154.9 mm. (13 meas., range 146 to 166 mm.), ♀ 145.0 mm. (11 meas., range 130 to 170 mm.); tail ♂ 132.5 mm. (13 meas., range 111 to 150 mm.), ♀ 127.4 mm. (11 meas., range 105 to 150 mm.); h. f. ♂ 29.9 mm. (13 meas., range 26 to 32.5 mm.), ♀ 28.8 mm. (11 meas., range 27 to 31 mm.); ear ♂ 20.6 mm. (13 meas., range 19 to 23 mm.), ♀ 20.4 mm. (11 meas., range 17.5 to 25 mm.); one ♀ weighed 59 g.

BREEDING. Foetuses (1×4 , 1×5) in Zambia (Ansell, 1960); (3×2 , 3×3) Hopkins (MS.). Usually 2 to 4 in a litter in South West Africa (Shortridge, 1934).

HABITAT. Typically swamps, reed beds and river valleys. Occurs at various elevations; recorded from boggy moss covered ground between 12,500 and 14,000 feet on Ruwenzori. Misonne (1963) has found this species in mixed savanna in the Congo.

BIOLOGY. Vegetarian. Nests made of grass on surface of the ground.



FIG. 4. Distribution of *Dasymys incommutus*.

Genus *ARVICANTHIS* Lesson. Unstriped Grass-mice

1842. *Arvicanthis* Lesson, *Nouv. Tabl. Regne Anim. Mammif.* : 147. Genotype, by monotypy and original designation, *Lemmus niloticus* Geoffroy, 1803 = *Hypudaeus variegatus* Lichtenstein, 1823 = *Arvicola niloticus* Desmarest, 1822.

1843. *Isomys* Sundevall, *K. svenska VetenskAkad. Handl.* 1842 : 219.

Medium sized animals, with fur composed of rather harsh hairs which are annulated with brown and buff in such a way as to produce a "pepper and salt" effect. The genus might be confused with *Mylomys* but *Arvicanthis* has a grisly coloured under-surface and upper incisors without grooves. The tail is usually distinctly shorter than the head and body.

Arvicanthis niloticus (Desmarest)

1822. *Arvicola niloticus* Desmarest, *Mammalogie* 2 : 281. Egypt.

1842. *Mus abyssinicus* Rüppell, *Mus. Senckenbergianum* 3 : 104. Entschetqab, Simen Province, Ethiopia [13° 15' N. 38° 20' E.].

DESCRIPTION. As for genus.

DISTRIBUTION. Kitgum, Acholi; Congo Road, north of Maramagambo Forest, Burumba, Kagambah, Mbarara, Ankole; Buruli, Entebbe, Kakumiro, Kampala, Kisingo, Mabira Forest, near Masaka, Nalweyo, Buganda; Budongo Forest, Bulisa, Butiaba, Hoima, Kibiro, Masindi, Bunyoro; Amudat, Anamuget, Bokora, Kamchuru, Kotido, Locihotome, Moroto, Moruita, Nabilatuk, Karamoja; Nyakabande, Nyalusanje, Kigezi; Kibusi, Lango; Ajeluk, Amuria, Serere, Teso; Bugoye, Bundibugyo, Crater Track, Hakitengya, Ilumia, Kamulikwezi, Kilembe, Kimara, Makoga, Mpanga Forest, Mubuku Valley, Mweya, south-east Ruwenzori, Toro; Adropi, Arua, Offude, Rhino Camp, West Nile. Kibandama, Patong. Text-fig. 5.

MEASUREMENTS. H. & b. ♂ 146.3 mm. (54 meas., range 120 to 184 mm.), ♀ 141.6 mm. (59 meas., range 120 to 167 mm.); tail ♂ 110.8 mm. (54 meas., range 83 to 134 mm.), ♀ 109.7 mm. (58 meas.; range 86 to 129 mm.); h. f. ♂ 28.5 mm. (55 meas., range 23 to 32 mm.), ♀ 27.9 mm. (58 meas., range 25 to 32.5 mm.); ear ♂ 16.7 mm. (52 meas., range 13 to 20 mm.), ♀ 16.3 mm. (57 meas., range 13 to 20 mm.); weight ♂ 80.0 g. (23 weighed, range 57 to 120 g.), ♀ 77.5 g. (33 weighed, range 50 to 101 g.).

BREEDING. Foetuses (1 × 4) Aug. Congo Road, (1 × 4) Sep. Kamulikwezi. Watson (1950) reports a possible maximum breeding season towards the end of the rains as they are very numerous during the early months of the dry season.

HABITAT. Typically a grassland species but also common in bush and cultivated land. May be found in native huts and grain stores.

BIOLOGY. Nocturnal and diurnal. Herbivorous, eating leaves and stems, especially of *Ameranthus polygamus*. The black-shouldered kite (*Elanus coeruleus*) has been reported to prey on this species. It digs burrows in which it nests, often in banks or rubbish heaps or at the foot of bushes, with tunnels leading through the thick grass from them. They are made of fine grass and often placed four or five together, forming a warren. Surface nests also occur, as well as burrows, but it is not

known in what circumstances they are used. The underground nests are usually 8 inches to 2 feet deep. The surface nests are usually in a thick tussock of grass.

Genus *PELOMYS* Peters. Creek Rats

1852. *Pelomys* Peters, *Mber. preuss. Akad. Wiss. Berl.* **1852**: 275. As a subgenus of *Mus* Linnaeus; genotype, by monotypy, *Mus. (Pelomys) fallax* Peters.

1910. *Desmomys* Thomas, *Ann. Mag. nat. Hist.*, (8) **5**: 284. *Pelomys harringtoni* Thomas, valid as a subgenus.

1924. *Komemys* de Beaux, *Ann. Mus. Stor. nat. Genova* **51**: 207. *Komemys isseli* de Beaux, valid as a subgenus.



FIG. 5. Distribution of *Arvicanthis niloticus*.

The creek rats are medium sized rats. The colour of the dorsal surface rather resembles *Arvicanthis* from which they can be distinguished by the grooved upper incisors. They may or may not have a distinct dorsal stripe. The underside is dirty yellow, buff or greyish and not sharply demarcated from the dark coloured flanks. The relative length of the tail varies in the different species. *P. isseli* is included in the subgenus *Komemys* and the other two Uganda species in the subgenus *Pelomys*.

1	With very distinct black dorsal stripe	.	.	.	.	.	.	.	.	2
	Dorsal stripe absent	.	.	.	.	.	.	.	.	<i>P. fallax</i>
2	Tail about 1.5 times length of head and body	.	.	.	.	.	.	.	.	<i>P. isseli</i>
	Tail about as long as head and body	.	.	.	.	.	.	.	.	<i>P. hopkinsi</i>

Pelomys fallax (Peters)

1852. *Mus (Pelomys) fallax* Peters, *Mber. preuss. Akad. Wiss. Berl.* 1852 : 275. Caya District, Zambezi River, Portuguese East Africa = Sena, Mozambique [17° 20' S. 35° 10' E.].

DESCRIPTION. Golden-yellow above, the hairs heavily annulated with black, giving a "pepper and salt" effect as in *Arvicanthis*; no dark dorsal stripe. Under-side olive buff. Tail just shorter than head-and-body length.

DISTRIBUTION. Kagambah, Mbarara, Ankole; Kiduha, Nyalasanje, Kigezi. Text-fig. 6.

MEASUREMENTS. H. & b. ♂ 142.3 mm. (6 meas., range 135 to 146 mm.), ♀ 147 mm. (1 meas.); tail ♂ 133.7 mm. (6 meas., range 127 to 137 mm.), ♀ 135 mm.; h. f. ♂ 29.7 mm. (6 meas., range 29 to 30 mm.), ♀ 29.5 mm.; ear ♂ 17.8 mm. (6 meas., range 17 to 18 mm.), ♀ 18 mm.; none weighed.

BREEDING. Foetuses, Ansell (1960) reports (1 × 9, 1 × 7); juveniles and sub-adults caught throughout the year suggests no fixed breeding season in Zambia.

HABITAT. Reported from swamps, reed beds, river banks and damp places.

BIOLOGY. Reported to be diurnal in South West Africa (Shortridge, 1934), but Ansell (1960) suggests that it is mainly nocturnal in Zambia. The South West African form of this species is reported to feed on reed shoots and other swamp vegetation, whilst in Tanzania it is stated to be destructive to grain crops. The species is a very able swimmer, and in Angola is reported to make deep burrows although no signs of any nests or holes have been found in other localities.

Pelomys isseli (de Beaux)

1924. *Komemys isseli* de Beaux, *Ann. Mus. Stor. nat. Genova* 51 : 207. Kome Island, Buganda.

DESCRIPTION. Upperside buff, sprinkled with black and with a very distinct black mid-dorsal stripe. Underside dirty whitish or buff. Tail nearly 1.5 times the length of the head and body.

DISTRIBUTION. Bugala Island, Kome Island, Buganda. Text-fig. 6.

MEASUREMENTS. Only two ♀ measured, h. & b. 100 and 106 mm. ; tail 143 and 148.5 mm. ; h. f. 29 and 29 mm. ; ear 16 and 18.5 mm. ; not weighed.

BREEDING. No information available.

HABITAT. No information available.

BIOLOGY. No information available.



FIG. 6. Distribution of *Pelomys* spp.

Pelomys hopkinsi Hayman

1955. *Pelomys hopkinsi* Hayman, *Rev. Zool. Bot. afr.* **52**: 323. Rwamachuchu, Kigezi.

DESCRIPTION. General appearance that of a small *Arvicanthis* with a distinct black mid-dorsal stripe. Underside generally buffy. Tail about as long as head and body.

DISTRIBUTION. Rwamachuchu, Kigezi. Text-fig. 6.

MEASUREMENTS. One ♂ meas., tail 135 mm.; h. f. 32 mm.

BREEDING. No information available.

HABITAT. Edge of papyrus swamp.

BIOLOGY. No information available.

Genus **LEMNISCOMYS** Trouessart. Striped Grass-mice

1881. *Lemniscomys* Trouessart, *Bull. Soc. Sci. Angers* **10**: 124. As a subgenus of *Mus* Linnaeus; genotype, by subsequent designation (Thomas, 1916, *Ann. Mag. nat. Hist.*, (8) **18**: 67), *Mus barbarus* Linnaeus.

The striped grass mice are characterized by the presence of a dark mid-dorsal line and numerous white dorsal and dorso-lateral stripes which may or may not be broken up into spots. The underside is pure white. The tail is hairy and as long as, or longer than the head and body. The fifth finger is shortened.

White dorsal and dorso-lateral stripes continuous	<i>L. barbarus</i>
White dorsal and dorso-lateral stripes broken into spots	<i>L. striatus</i>

Lemniscomys barbarus (Linnaeus)

1766. *Mus barbarus* Linnaeus, *Syst. Nat.* 12th ed., pt. 2, add. not paged. Morocco.

DESCRIPTION. Slightly smaller than *L. striatus*; continuous stripes along body.

DISTRIBUTION. Paraa, Acholi; Nabilatuk, Karomoja; Ajeluk, Malera, Serere, Teso; Rhino Camp, Wadelai, West Nile. Text-fig. 7.

MEASUREMENTS. H. & b. ♂ 105.7 mm. (7 meas., range 98 to 118 mm.), one ♀ 105 mm.; tail ♂ 107.3 mm. (7 meas., range 95 to 116 mm.), ♀ 118 mm.; h. f. 23.3 mm. (7 meas., range 22 to 25 mm.), ♀ 23 mm.; ear ♂ 12.9 mm. (7 meas., range 12 to 15 mm.), ♀ 12 mm.; weight ♂ 30.0 g. (6 weighed, range 23 to 36 g.), ♀ 41 g.

BREEDING. Foetuses (1 × 5) Oct., Nabilatuk.

HABITAT. Typically grass and scrub in dryer areas.

BIOLOGY. No information available.

Lemniscomys striatus (Linnaeus)

1758. *Mus striatus* Linnaeus, *Syst. Nat.* 10th ed., pt. 1: 62. "India" = Sierra Leone (Thomas 1911, *Proc. zool. Soc. Lond.* **1911**: 148).

1910. *Arvicanthis macculus* Thomas & Wroughton, *Trans. zool. Soc. Lond.* **19**: 515. Muhokya, Toro.

1919. *Lemniscomys macculus* Hollister, *Bull. U.S. nat. Mus.* **99**: 138.

DESCRIPTION. Slightly larger of the two species. The white stripes broken into spots which may be joined to each other.

DISTRIBUTION. Awack, Fort Patiko, Pamdero, Acholi; Congo Road, Maramagambo Forest, north of Maramagambo Forest, between Rwempuno and Kaizi Rivers, Kagambah, Ankole; Entebbe, Kabanyolo, Kabula, Kajansi, Kampala, Kasai Forest, Kisingo, Lunyo, Mabira Forest, Nabugabo, Buganda; Lwakaka, Bugisu; Tororo, Bukedi; Busingiro, Hoima, Masindi, Bunyoro; Moroto, Namalu, Karamoja;



FIG. 7. Distribution of *Lemniscomys* spp.

Bugoye, Bundibugyo, Crater Track, Ilumia, Mihunga, Mpanga Forest, Mubuku Valley, Muhokya, Mweya, south east Ruwenzori, Tokwe, Toro; Rhino Camp, West Nile. Text-fig. 7.

MEASUREMENTS. H. & b. ♂ 111.7 mm. (27 meas., range 93 to 131 mm.), ♀ 113.9 mm. (24 meas., range 91 to 142 mm.); tail ♂ 119.4 mm. (25 meas., range 92 to 144 mm.), ♀ 124.2 mm. (18 meas., range 103 to 141 mm.); h. f. ♂ 24.2 mm. (28 meas., range 20.5 to 27.5 mm.), 24.4 mm. ♀ (24 meas., range 20.5 to 27 mm.); ear ♂ 15.3 mm. (21 meas., range 14 to 17.5 mm.), ♀ 15.8 mm. (15 meas., range 14 to 17 mm.); weight ♂ 36.7 g. (13 weighed, range 27 to 46 g.), ♀ 38.2 g. (12 weighed, range 18 to 68 g.).

BREEDING. Foetuses (1 × 5) Aug. Maramagambo Forest; Allen & Loveridge (1942) report (1 × 5) Dec. Kibale Forest, (1 × 5) Dec. Bundibugyo. Juveniles—4 nestlings Nov. Mabira Forest, 2 blind nestlings Jan. Mihunga, 2 young late Jan. Bugoye. Misonne (1963) reports litters of 3 to 6 in Congo.

HABITAT. Inhabits grassland, savanna, dense scrub and cultivated land. It is also apparently found in quite thick forest.

BIOLOGY. Nocturnal and diurnal. Omnivorous, observation of stomach contents showed leaf and stem remains, seeds and insects to be numerous. "Natives state that this species eats young shoots of grass, sweet potatoes, cassava and fallen maize cobs. The nest is often placed at the base of a tussock of tall grass, and is made from grass" (Hopkins MS.).

Genus *RHABDOMYS* Thomas. Four-striped Grass-mice

1916. *Rhabdomys* Thomas, *Ann. Mag. nat. Hist.*, (8) 18: 69. Genotype, by original designation, *Mus pumilio* Sparrman.

Characterized by having four black stripes along length of body and a pale mid-dorsal line. Yellow to grey-brown ground colour. Tail black above, light brown below.

Rhabdomys pumilio (Sparrman)

1784. *Mus pumilio* Sparrman, *K. svenska VetenskAkad. Handl.* 1784: 236. Sitzicamma Forest on Snake River, east of Cape of Good Hope, South Africa [33° 55' S. 23° 47' E.].

DESCRIPTION. As for genus.

DISTRIBUTION. Mudangi, Bugisu. Text-fig. 8.

MEASUREMENTS. H. & b. ♂ 106 mm., ♀ 103 mm.; tail ♂ 82 mm., ♀ 81 mm.; h. f. ♂ 22 mm., ♀ 20 mm.; ear ♂ 12 mm., ♀ 11 mm.

BREEDING. Foetuses (2 × 5, 1 × 3) in Kenya. From South West Africa 6 and 7 foetuses have been reported (Shortridge, 1934). Breed at 3 months.

HABITAT. In East Africa only recorded from high altitudes. In South West Africa frequent in bushy and semi-dry vlei country, mainly in scrub, long grass and forest edges (Shortridge, 1934).

BIOLOGY. Ground-dwelling but also, to a limited extent, arboreal. Makes burrows. Diurnal. Mainly vegetarian but also recorded as eating snails, insects and eggs and nestlings of birds.

Genus *HYBOMYS* Thomas. Back-striped Mice

1910. *Hybomys* Thomas, *Ann. Mag. nat. Hist.*, (8) 5 : 85. Genotype, by original description, *Mus univittatus* Peters.

1911. *Typomys* Thomas, *Ann. Mag. nat. Hist.*, (8) 7 : 382. Genotype, by original description, *Mus trivirgatus* Temminck. Synonym of *Hybomys* (Ingoldby, *Ann. Mag. nat. Hist.*, (10) 3 : 522).



FIG. 8. Distribution of *Rhabdomys pumilio* and *Hybomys univittatus*.

Medium sized rats characterized by having a rather indistinct mid-dorsal black line running from between the ears to the base of the tail. Upperside light brown, usually with a strong reddish tinge which is particularly well marked on the rump. Underside light buffy-grey contrasting sharply with the flanks. Scales of tail not at all obscured by the short hairs. Tail slightly shorter than head-and-body length. Hindfeet with long toes. Incisors not grooved.

Hybomys univittatus (Peters)

1876. *Mus univittatus* Peters, *Monatsb. K. preuss. Akad. Wiss. Berl.* 1876 : 479. Donghila, Gaboon [0° 12' N. 9° 44' E.].

DESCRIPTION. As for genus.

DISTRIBUTION. Kalinzu Forest, Maramagambo Forest, Ankole; Malabigambo Forest, Mpanga Forest, Buganda; Impenetrable Forest, Kigezi; Mpanga Forest, Mubuku Valley, north Ruwenzori, Toro. Text-fig. 8.

MEASUREMENTS. H. & b. ♂ 118.5 mm. (8 meas., range 103 to 128 mm.), ♀ 117.9 mm. (11 meas., range 108 to 127 mm.); tail ♂ 105.5 mm. (8 meas., range 85 to 116 mm.), ♀ 103.9 mm. (11 meas., range 86 to 115 mm.); h. f. ♂ 27.2 mm. (8 meas., range 26 to 29 mm.), ♀ 26.4 mm. (11 meas., range 24 to 28 mm.); ear ♂ 15.6 mm. (8 meas., range 15 to 17 mm.), ♀ 15.5 mm. (11 meas., range 14 to 17.5 mm.); weight ♂ 50.7 g. (6 weighed, range 46 to 61 g.), ♀ 49.4 g. (7 weighed, range 38 to 56 g.).

BREEDING. Foetuses (2 × 3) (1 lactating) Oct. Impenetrable Forest, (1 × 2) lactating Jul. Mpanga Forest (Buganda). Two ♀ lactating Sep. Maramagambo Forest. Misonne (1963) reports two embryos in Congo animals.

HABITAT. Apparently confined to forest being found in rain forest, transition forest and mountain forest but not bamboo forest. It has not been found in gallery forest. It is more abundant in secondary vegetation than in primary forest; apparently prefers the wetter parts of forest.

BIOLOGY. Reported by the Congo expedition to eat "the red fruit of a lily-like plant of which chimpanzees are so fond" (Hatt, 1940). Two stomachs examined by Delany (1964*b*) contained only vegetable matter. Apparently a good swimmer.

Genus *AETHOMYS* Thomas. Bush Rats

1915. *Aethomys* Thomas, *Ann. Mag. nat. Hist.*, (8) 16 : 477. As a subgenus of *Epimys* Trouesart = *Rattus* Fisher; genotype, by original designation, *Epimys hindei* (Thomas).

Medium sized rats with tail usually a little shorter than head-and-body length. Incisor teeth ungrooved. Fur soft, smooth and tidy, but not silky and with a metallic lustre. Hairs of underside with pure white tips, with long slate grey bases, mottled when hairs displaced. The backs of the hands and feet are white.

Tail sparsely haired, nearly as long as, or occasionally slightly longer than head and body; dorsal pelage light brown in colour *A. kaiseri*
 Tail more hairy, barely longer than body without head; dorsal pelage rich warm brown *A. nyikae*

Aethomys kaiseri (Noack)

1887. *Epimys kaiseri* Noack, *Zool. Jb. Syst.* 2: 228. Qua Mpala (Marungu), southern Congo [6° 46' S. 29° 32' E.].

DESCRIPTION. Tail sparsely haired; upper side dark brownish grey or brown; underside mainly white, grey bases of hairs show if the fur is ruffled.

DISTRIBUTION. Chua, Fort Patigo, Paraa, Acholi; Entebbe, Kabanyolo, Kabulamuleri, Kakumiro, Kampala, Kikonda, Kisingo, Lialo, Nabugabo, Nkyanuna, Zika Forest, Buganda; Tororo, Bukedi; Hoima, Bunyoro; Moroto, Nabilatuk, Namalu, Karamoja; Ajeluk, Serere, Teso; Kimara, Wanka R., Wassa R., Toro; Nebbi, Ngal, Offude, Pakwach, Rhino Camp, West Nile. Text-fig. 9.

MEASUREMENTS. H. & b. ♂ 160.4 mm. (18 meas., range 140 to 184 mm.), ♀ 149.5 mm. (10 meas., range 135 to 169 mm.); tail ♂ 156.8 mm. (18 meas., range 140 to 186 mm.), ♀ 145.8 mm. (10 meas., range 121 to 180 mm.); h. f. ♂ 29.2 mm. (17 meas., range 26 to 32 mm.), ♀ 29.0 mm. (10 meas., range 26 to 32 mm.); ear ♂ 19.0 mm. (13 meas., range 17 to 21 mm.), ♀ 19.0 mm. (8 meas., range 16 to 23 mm.); weight ♂ 109.0 g. (10 weighed, range 62 to 150 g.), ♀ 82.4 g. (7 weighed, range 58 to 100 g.).

BREEDING. Foetuses (1 × 3) Sep. Kabanyolo, (3 × 3) Kampala (Hopkins MS.). Three large young observed attached to nipples of ♀ in Tanzania (Allen & Loveridge, 1942).

HABITAT. Open country, thick grassland. Southern & Hook (1963a) report finding this rat in the ground layer of seasonal forest, the swamp edge of lakeside forest and in deserted shambas at the edge of forest.

BIOLOGY. Occasionally enters houses (Hopkins MS.).

Aethomys nyikae (Thomas)

1897. *Mus nyikae* Thomas, *Proc. zool. Soc. Lond.* 1897: 431. Nyika Plateau, northern Nyasaland [approximately 10° 30' S. 33° 52' E.].

1907. *Mus walambae* Wroughton, *Mem. Manchr. lit. phil. Soc.* 51: 21. Msofu River, Rhodesia [close to 13° 30' S. 29° E.].

DESCRIPTION. Tail more hairy and the underside a darker grey than in *A. kaiseri*. Dorsal pelage a rich warm brown. Tail shorter in proportion to head-and-body length than *A. kaiseri*.

DISTRIBUTION. Kagambah, Mbarara, near Lake Nakivali, Ankole; Koki Co., Buganda; "Kigezi". Text-fig. 9.

MEASUREMENTS. Two ♂ h. & b. 159 mm., 162 mm.; tail 124 mm., 150 mm.; h. f. 28 mm., 28.5 mm.; ear 21 mm., 22 mm.; none weighed. ♀ h. & b. 167.9 mm. (7 meas., range 148 to 196 mm.); tail 138.4 mm. (7 meas., range, 131 to 151 mm.); h. f. 30.3 mm. (7 meas., range 28 to 33 mm.); ear 22.3 mm. (7 meas., range 20 to 24 mm.); none weighed.

BREEDING. Foetuses, in Zambia, (1 × 2), (1 × 4), (1 × 5) (Ansell, 1960).

HABITAT. In Zambia, usually in ant hills in woodland (Ansell, 1960).

BIOLOGY. No information available.

Genus *RATTUS* Fischer. House Rats

1803. *Rattus* [*sic*] Fischer, *Natmus. Naturg. Paris* 2 : 128. Genotype, by subsequent designation (Hollister, 1916, *Proc. biol. Soc. Wash.* 29 : 126), *Mus decumanus* Pallas = *Mus norvegicus* Berkenhout.

1881. *Epimys* Trouessart, *Bull. Soc. Sci. Angers* 10 : 117. As a subgenus of *Mus* Linnaeus ; genotype *Mus rattus* Linnaeus.

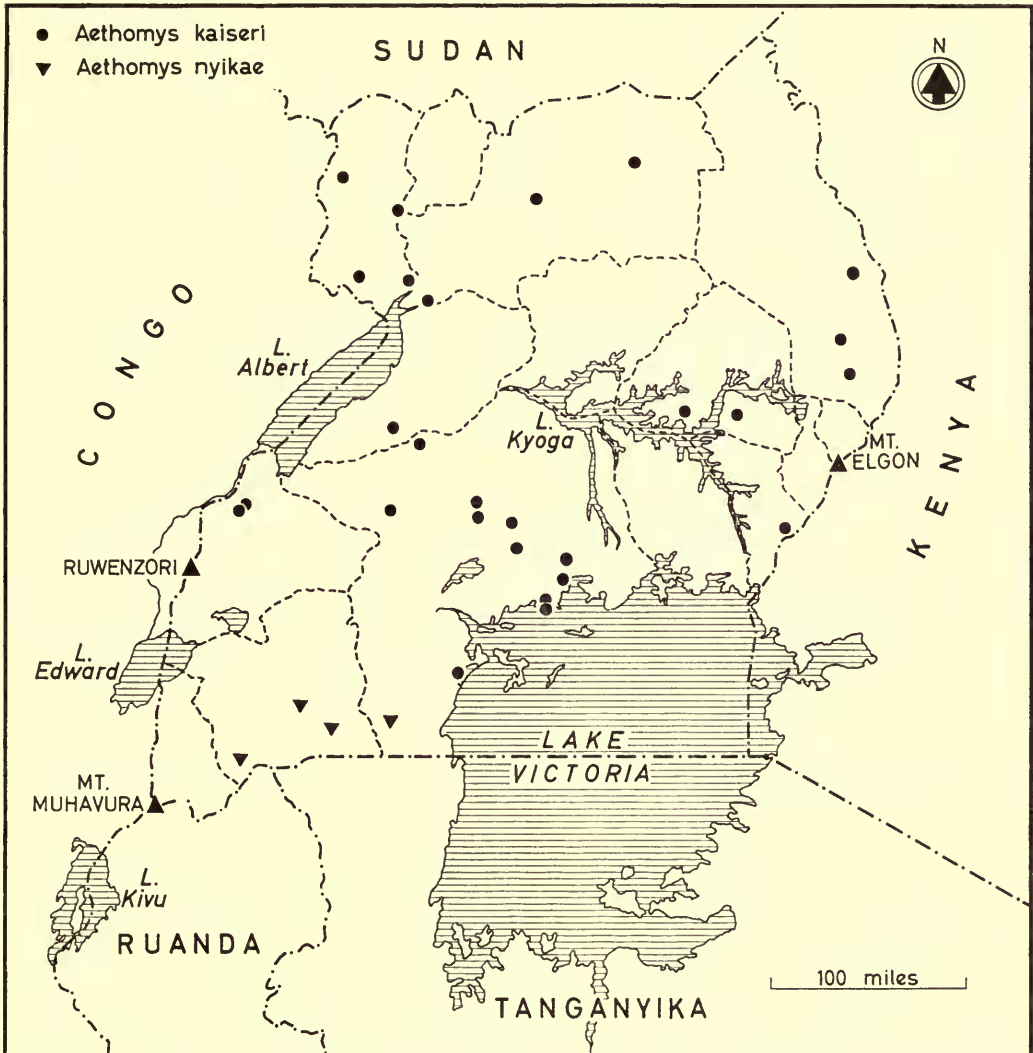


FIG. 9. Distribution of *Aethomys* spp.

Medium sized rats with incisor teeth ungrooved. Dorsal pelage not striped, rather long and slightly harsh; varying shades of grey and brown. Underside varies in colour from creamy to dark slate, never pure white. No clear demarcation between flanks and belly. Tail usually longer than head and body, and uniformly dark coloured along length.

Rattus rattus (Linnaeus)

1758. *Mus rattus* Linnaeus, *Syst. Nat.*, 10th ed., 1: 61. Uppsala, Sweden [59° 55' N. 18° 08' E.].

DESCRIPTION. As for genus.

DISTRIBUTION. Patiko, Acholi; Gayoza, Kichwamba, Ankole; Entebbe, Kampala, Mabira Forest, Masaka, Buganda; Biso, Budongo Forest, Butiaba, Masindi Port, Bunyoro; Iriri, Moroto, Namalu, Karamoja; Nyakabande, Kigezi; Kapiri, Serere, Teso; Bundibugyo, Fort Portal, Isungu, Katwe, Mihunga, Muhokya, south east Ruwenzori, Toro; Rhino Camp, West Nile. Probably occurs in all towns throughout Uganda. Text-fig. 10.

MEASUREMENTS. H. & b. ♂ 142.2 mm. (9 meas., range 109 to 193 mm.), 3 ♀ measured, 126 mm., 150 mm., 170 mm.; tail ♂ 172.6 mm. (9 meas., range 148 to 198 mm.), ♀ 124 mm., 189 mm., 192 mm.; h. f. ♂ 31.7 mm. (9 meas., range 31 to 33 mm.), ♀ 29 mm., ?, 33 mm.; ear ♂ 21.3 mm. (9 meas., range 19 to 24 mm.), ♀ 21 mm., ?, 22.5 mm.; weight ♂ 62.5 g. (5 weighed, range 47 to 92 g.), ♀ 58 g., 100 g., ?

BREEDING. Breeding data from Kenya and Congo (Misonne, 1963) indicate that *Rattus* breeds throughout the year, with a peak during the long rains in the early part of the year and with a second smaller peak during the later rains. Breeding at a minimum during the dry seasons. The average number of foetuses in 54 pregnant females collected in Kampala was 6 (Hopkins MS.). Watson (1950) reports that the average number in a litter is 6 or 7 in Uganda. The young when born are blind with the external ears sealed down. The eyes open on the fourteenth day, weaning takes place about a month after birth. The gestation period is 21 days.

HABITAT. Essentially a dweller in huts and houses; when found in open usually in close proximity to buildings. Generally found in thatch of huts, but occasionally may be found in the walls and floor.

BIOLOGY. Exclusively nocturnal. Omnivorous, food includes all kinds of grain, groundnuts, cotton seed, meat, potatoes etc. Competes with *Mastomys*, the other commensal rat, which it has now excluded from most towns. It is a vector of the flea *Xenopsilla* and there is no doubt that it is also the principle vector of plague in Uganda (Hopkins MS.). Allen & Loveridge (1942) report that predators include the owl (*Bubo africanus*), brown house snake (*Boaedon lineatus*), gaboon viper (*Bitis gabonica*), nose-horned viper (*Bitis nasicornis*) and the black-necked cobra (*Naja nigricollis*).

Genus *PRAOMYS* Thomas. Soft-furred Rats

1915. *Praomys* Thomas, *Ann. Mag. nat. Hist.*, (8) 15: 477. As a subgenus of *Epimys* Trouessart = *Rattus* Fischer; genotype, by original designation, *Epimys tullbergi* (Thomas).

Similar to *Mastomys* with fur of silky texture; tail appreciably longer and only three pairs of mammae present. Tail almost naked. Fur brown to black dorsally, greyish white ventrally.



FIG. 10. Distribution of *Rattus rattus* and *Praomys morio*.

Praomys morio (Trouessart)

1881. *Mus morio* Trouessart, *Bull. Soc. Sci. Angers* **10**: 121. Cameroon Mountains [4° 13' N. 9° 10' E.].
 1897. *Mus jacksoni* de Winton, *Ann. Mag. nat. Hist.*, (6) **20**: 318. Entebbe.

DESCRIPTION. As for genus.

DISTRIBUTION. Maramagambo, Kalinzu Forests, Ankole; Entebbe, Kabanyolo, Kabulamuliro, Kampala, Kikandwa, Kisimbiri, Lunyo Forest, Malabigambo Forest, Mpanga Forest, Nabugabo, Zika Forest, Buganda; Budongo, Bugoma Forests, Bunyoro; Echuya, Impenetrable Forests, Kumba, Kigezi; Benet, Sebei; Bundibugyo, Bwamba, Kimara, Makoga, Mihunga, Mongiro, Mpanga Forest, Mubuku Valley, Wasa River, Toro. Text-fig. 10.

MEASUREMENTS. H. & b. ♂ 119.9 mm. (50 meas., range 97 to 140 mm.), ♀ 115.3 mm. (45 meas., range 95 to 135 mm.); tail ♂ 138.4 mm. (49 meas., range 121 to 160 mm.), ♀ 136.1 mm. (45 meas., range 94 to 160 mm.); h. f. ♂ 25.0 mm. (43 meas., range 22 to 27 mm.), ♀ 24.2 mm. (41 meas., range 21 to 27 mm.); ear ♂ 17.5 mm. (43 meas., range 15 to 20 mm.), ♀ 17.4 mm. (39 meas., range 15 to 19 mm.); weight ♂ 44.1 g. (40 weighed, range 21 to 57 g.), ♀ 37.0 g. (40 weighed, range 21 to 55 g.).

BREEDING. Foetuses (1 × 5 lactating) Oct. Echuya; (1 × 3) Sep. Chambura; (1 × 5), (1 × 4 lactating) Sep. Maramagambo. Three lactating, Mpanga (Buganda), May. Litters 2 to 6, normally 3 or 4 (Hopkins MS.). Foetuses (1 × 5) in Zambia.

HABITAT. Typically medium and high altitude forest.

BIOLOGY. Nocturnal. Omnivorous; plant and insect remains found in stomachs.

Genus *HYLOMYSCUS* Thomas. Climbing Wood-mice

1926. *Hylomyscus* Thomas, *Ann. Mag. nat. Hist.*, (9) **17**: 178. Genotype, by original designation, *Epimys aeta* Thomas.

The climbing mice are small with the tail always longer than the head-and-body length; they are very like *Praomys*. They differ from the latter in their smaller size and in the hind foot rarely attaining a length of 22 mm. whereas in *Praomys* it is always at least 22 mm.

Underside whitish grey with buff, flanks grey to dull brown	.	.	.	.	.	<i>H. denniae</i>
Underside white or silvery grey, flanks rich buff	.	.	.	.	.	<i>H. stella</i>

Hylomyscus denniae (Thomas)

1906. *Mus denniae* Thomas, *Ann. Mag. nat. Hist.*, (7) **18**: 144. Mubuku Valley, Toro.

DESCRIPTION. Dorsal surface grey to buff, the fur soft and rather woolly. Underside whitish grey touched with buff, well demarcated from the flanks. Tail longer than head and body.

DISTRIBUTION. Mpanga Forest, Buganda; Impenetrable Forest, Kigezi; Mubuku Valley, Toro. Kokanjiro. Text-fig. 11.

MEASUREMENTS. H. & b. ♂ 89.8 mm. (21 meas., range 71 to 103 mm.), ♀ 87.2 mm. (14 meas., range 76 to 99 mm.); tail ♂ 125.6 mm. (21 meas., range 84 to 154 mm.), ♀ 121.2 mm. (14 meas., range 97 to 145 mm.); h. f. ♂ 20.1 mm. (21 meas., range 18 to 22 mm.), ♀ 19.7 mm. (14 meas., range 18 to 21.5 mm.); ear ♂ 16.9 mm. (21 meas., range 13 to 21 mm.), ♀ 15.4 mm. (14 meas., range 13 to 20 mm.); weight ♂ 17.3 g. (12 weighed, range 8 to 24 g.), ♀ 20.0 g. (11 weighed, range 12 to 42 g.).

BREEDING. No data available. Large numbers of males with small testes suggesting large juvenile population in October in Kigezi.

BIOLOGY. No information available.



FIG. 11. Distribution of *Hylomyscus denniae*, *H. stella* and *Myomys fumatus*.

Hylomyscus stella (Thomas)

1911. *Rattus stella* Thomas, *Ann. Mag. nat. Hist.*, (8) 7 : 590. Between Mawambi and Avakubi, Turi, E. Congo [between 1° 00' N. 28° 55' E. and 1° 18' N. 27° 32' E.].

DESCRIPTION. Slightly larger in size than *H. denniae*; upperside and flanks a bright ochraceous colour; underside a whitish or silvery grey colour well demarcated from the flanks. Tail longer than head and body.

DISTRIBUTION. Kalinzu Forest, Maramagambo Forest, Ankole; Mabira Forest, Malabigambo Forest, Mpanga Forest, Zika Forest, Buganda; Bwamba, Toro. Text-fig. 11.

MEASUREMENTS. H. & b. ♂ 98.3 mm. (6 meas., range 89 to 104 mm.), ♀ 90.3 mm. (7 meas., range 85 to 101 mm.); tail ♂ 125.3 mm. (6 meas., range 121 to 133 mm.), ♀ 131.9 mm. (7 meas., range 111 to 140 mm.); h. f. ♂ 17.8 mm. (5 meas., range 17 to 19 mm.), ♀ 18.0 mm. (7 meas., range 17 to 20 mm.); ear ♂ 15.0 mm. (5 meas., range 14 to 16 mm.), ♀ 15.1 mm. (7 meas., range 14 to 16 mm.); weight ♂ 18.6 g. (6 weighed, range 16 to 23.5 g.), ♀ 17.4 g. (7 weighed, range 15 to 22 g.).

BREEDING. Hatt (1940) reports a female from the Congo containing three embryos.

HABITAT. Typically found in rain forest, especially around the bases of trees.

BIOLOGY. No information available.

Genus *MYOMYS* Thomas. African Meadow Rats

1915. *Myomys* Thomas, *Ann. Mag. nat. Hist.*, (8) 16 : 447. As a subgenus of *Epimys* Trouessart = *Rattus* Fischer; type, by original designation, *Epimys colonus* (Smith) = *Mus colonus* Brants.

The meadow rats have a similar dorsal coloration to *Mastomys* but are smaller in size; the tail is longer than the head and body; the underside is pure white.

Myomys fumatus (Peters)

1878. *Mus fumatus* Peters, *Mber. preuss. Akad. Wiss. Berl.* 1878 : 200. Ukamba, Kenya [1°-2° S. 37°-38° E.].

DESCRIPTION. As for genus.

DISTRIBUTION. Fort Patiko, Acholi; Kotido, Nakiloro, Karamoja. Text-fig. 11.

MEASUREMENTS. H. & b. ♂ 98.0 mm. (5 meas., range 88 to 105 mm.), two ♀ 75 mm., 103 mm.; tail ♂ 126.4 mm. (5 meas., range 110 to 150 mm.), ♀ 97 mm., 130 mm.; h. f. ♂ 21.8 mm. (5 meas., range 21 to 24 mm.), ♀ 20 mm., 21 mm.; ear ♂ 16.2 mm. (5 meas., range 14 to 18 mm.), ♀ 13 mm., 14 mm.; weights ♂ 30.4 g. (5 weighed, range 24 to 35 g.), ♀ 12 g., 31 g.

BREEDING. No information available.

HABITAT. Dry savanna.

BIOLOGY. No information available.

Genus *MASTOMYS* Thomas. Multimammate Rats

1915. *Mastomys* Thomas, *Ann. Mag. nat. Hist.*, (8) **16** : 477. As a subgenus of *Epimys* Trouesart = *Rattus* Fischer ; type by original designation, *Epimys coucha* Smith = *Mus mariquensis* Smith, a race of *Mus natalensis* Smith.

The multimammate rats have no distinctive markings being very like *Praomys* in general appearance. The colour of the dorsal pelage is very variable, usually a grey-brown, but melanic specimens, entirely coal-black are common, especially in Kigezi. The underside is also of very variable colour ranging from a silvery grey to a pale grey touched with buff. The fur is distinctly soft and silky. Tail generally shorter than head and body. Female with teats in a continuous row, numbering up to 12 pairs, not divided into pectoral and inguinal sets.

Mastomys natalensis Smith

1834. *Mus natalensis* Smith, *S. Afr. quart. J.* **2** : 156. "About Port Natal" = Durban, Natal [29° 53' S. 31° 00' E.]. The nomenclature of this species is very confusing ; Swynerton & Hayman (1950) argue cogently in favour of the use of the specific name *coucha* Smith.

1836. *Mus coucha* Smith, *Rept, Exp. C. Afr.* : 43. 'The country between the Orange River and the Tropic' of Capricorn.

1897. *Mus ugandae* De Winton, *Ann. Mag. nat. Hist.*, (6) **20** : 377. Entebbe, Buganda.

1923. *Rattus somereni* Kershaw, *Ann. Mag. nat. Hist.*, (9) **11** : 594. Kaborini, Bukedi.

DESCRIPTION. As for genus.

DISTRIBUTION. Fort Fatiko, Gulu, Kitgum, Pamdero, Paraa, Acholi ; Burumba, Kichwamba, north of Maramagambo Forest, Ankole ; Chagwe, Entebbe, Kabanyolo, Kabulamuliro, Kampala, Kikandwa, Kikonda, Kisimbiri, Kisingo, Lialo, Mabira Forest, Mengo, Mubende, Buganda ; Kabaroni Camp, Mbale, Bugisu ; Busia, Tororo, Bukedi ; Fadjao, Hoima, Masindi, Bunyoro ; Isegero, Kama Island, Busoga ; Amudat, Iri, Kamchuru, Kotido, Moroto, Nabilatuk, Nakiloro, Namalu, Karamoja ; Kumba, Kigezi ; Kacheba, Kibusi, Ngai, Lango ; Ajeluk, Serere, Teso ; Bundibugyo, Crater Track, Kamulikwezi, Kimara, Makoga, Mubuku Valley, Mweya, Wasa River, Toro ; Login, Rhino Camp, Vurra, Yumbe, West Nile. Usaga. Text-fig. 12.

MEASUREMENTS. H. & b. ♂ 122·8 mm. (57 meas., range 90 to 154 mm.), ♀ 125·1 mm. (53 meas., range 95 to 148 mm.) ; tail ♂ 112·3 mm. (57 meas., range 88 to 150 mm.), ♀ 114·0 mm. (52 meas., range 95 to 135 mm.) ; h. f. ♂ 23·7 mm. (59 meas., range 18 to 30 mm.), ♀ 23·3 mm. (49 meas., range 20 to 27 mm.) ; ear ♂ 16·6 mm. (58 meas., range 14 to 24 mm.), ♀ 16·8 mm. (50 meas., range 11 to 21 mm.) ; weight ♂ 48·0 g. (32 weighed, range 23 to 70 g.), ♀ 44·6 g. (34 weighed, range 20 to 60 g.).

BREEDING. Female with 2 or 3 embryos Jul., Murchison Falls National Park. Two females lactating Jun. and Jul. from Mweya and Tororo respectively. Hopkins (MS.) states that number of embryos varies between 3 and 12, but 16 has been recorded. First litters are usually small, young females frequently containing 2 to 4 foetuses. In Tanzania, Chapman, Chapman & Robertson (1959) note that the popu-

lation drops to a minimum at the end of the dry season and that breeding is at its maximum towards the end of the rains. Large catches from Uganda in the dry season and not in breeding condition confirm this.

HABITAT. Practically in all types of habitat including buildings, swamps and cultivation. It was formerly the prevalent hut-rat throughout Uganda until driven out by the invading *Rattus rattus*.

BIOLOGY. Nocturnal. Omnivorous, plant remains were the commonest material observed in the stomachs; seeds and insects have been observed. The species is a



FIG. 12. Distribution of *Mastomys natalensis*.

good burrower and climber although less active than *R. rattus*. Nests in burrows. This species is a vector of the flea *Xenopsylla* and in the past has been an efficient vector of plague. The gaboon viper (*Bitis gabonica*) has been observed to prey on it (Allen & Loveridge, 1942).

Genus **MALACOMYS** Milne-Edwards. Swamp Rats

1877. *Malacomys* Milne-Edwards, *Bull. Soc. philom. Paris* 12: 10. Genotype, by original designation, *Malacomys longipes* Milne-Edwards.

The swamp rats are characterized by the great elongation of the hind feet. The metatarsals are loosely held together so as to splay out on soft ground. The tail is longer than the head and body; the underside of the body is greyish.

Malacomys longipes Milne-Edwards

1877. *Malacomys longipes* Milne-Edwards, *Bull. Soc. philom. Paris* 13: 9. Gaboon River, West Africa [approximately 0° 10' N. 10° 00' E.].

DESCRIPTION. As for genus.

DISTRIBUTION. Kalinzu Forest, Ankole; Kabanyolo, Mpanga Forest, Zika Forest, Buganda; Mpanga Forest, Toro. Text-fig. 13.

MEASUREMENTS. H. & b. ♂ 154.2 mm. (11 meas., range 120 to 172 mm.), ♀ 155.6 mm. (14 meas., range 127 to 183 mm.); tail ♂ 172.6 mm. (12 meas., range 158 to 190 mm.), ♀ 165.9 mm. (14 meas., range 151 to 186 mm.); h. f. ♂ 38.2 mm. (11 meas., range 35.5 to 40 mm.), ♀ 37.6 mm. (14 meas., range 35 to 40 mm.); ear ♂ 24.2 mm. (11 meas., range 21 to 29 mm.), ♀ 23.2 mm. (14 meas., range 19 to 28 mm.); weight ♂ 94.4 g. (9 weighed, range 65 to 120 g.), ♀ 93.3 g. (13 weighed, range 50 to 130 g.).

BREEDING. Foetuses (1 × 3) reported from Congo (Hopkins MS.); Ansell (1960) reports (1 × 3) from Zambia.

HABITAT. Wetter parts of forests.

BIOLOGY. Believed to be nocturnal. Omnivorous; food includes vegetable matter, insects, slugs and toads (Hopkins MS.). Makes a grass nest on the ground, also a climber (Misonne, 1963).

Genus **ZELOTOMYS** Osgood. Broad-headed Mice

1910. *Zelotomys* Osgood, *Publ. Field Mus. Nat. Hist., Zool.*, ser. 10, no. 2: 7. Genotype *Mus hildegardeae* Thomas.

Medium sized with distinctly pro-odont upper incisors. Dorsal pelage grey-brown, individual hairs with grey bases and brown tips. Backs of hands and feet brown. Tail covered in scales; hairs very sparse; appreciably shorter than length of head and body.

Zelotomys hildegardae (Thomas)

1902. *Mus hildegardae* Thomas, *Ann. Mag. nat. Hist.*, (7) 9: 219. Machakos, Kenya [$1^{\circ} 31' S. 37^{\circ} 15' E.$].

DESCRIPTION. As for genus.

DISTRIBUTION. Between Rwempuno and Kaizi Rivers, Ankole; Crater Track, Toro. Text-fig. 13.

MEASUREMENTS. Two ♂ h. & b. 124 mm., 120 mm., two ♀ 129 mm., 136 mm.; tail ♂ 89 mm., 86 mm., ♀ 92 mm., 90 mm.; h. f. ♂ 22 mm., 25 mm., ♀ 21 mm., 22 mm.; ear ♂ 15 mm., 13 mm., ♀ 15 mm., 13 mm.; weights ♂ 64 g., 57 g., ♀ 56 g., 64 g.



FIG. 13. Distribution of *Malacomys longipes* and *Zelotomys hildegardae*.

BREEDING. Foetuses (1 × 5) Jul., Crater Track.

HABITAT. *Imperata* grassland and scrub.

BIOLOGY. Examination of stomachs of four animals indicates an insectivorous diet.

Genus *MUS* Linnaeus

1758. *Mus* Linnaeus, *Syst. Nat.*, 10th ed. 1 : Genotype *Mus musculus* Linnaeus.

1837. *Leggada* Gray, *Charlesworth's Mag. nat. Hist.*, 1 : 586. Genotype *Leggada booduga* Gray.

The forms of this genus are all small mice (head-and-body length usually under 90 mm.), with the tail almost always shorter than the head and body. The fur is fairly soft but also quite crisp, falling back stiffly into place after being ruffled. We have included *grata* and *tenellus* with the species *minutoides*.

1	Underside grey or tinged with buff	2
	Underside pure white or nearly so; very small size	<i>M. minutoides</i>
2	Underside grey	<i>M. triton</i>
	Underside grey tinged with buff	<i>M. bufo</i>

Mus bufo (Thomas)

1906. *Leggada bufo* Thomas, *Ann. Mag. nat. Hist.*, (7) 81 : 145. Mubuku Valley, Toro.

DESCRIPTION. Large dark species with underside well washed with ochraceous-buff. Bases of belly hairs slate grey. General colour above dark coppery brown. Tail shorter than head and body.

DISTRIBUTION. Echuya Swamp, Echuya Forest, Impenetrable Forest, Kumba, Kigezi; Mihunga, Mubuku Valley, Toro. Text-fig. 14.

MEASUREMENTS. H. & b. ♂ 72.3 mm. (11 meas., range 68 to 79 mm.), ♀ 68.9 mm. (9 meas., range 61 to 73 mm.); tail ♂ 62.1 mm. (11 meas., range 53 to 69 mm.), ♀ 63.2 mm. (9 meas., range 56 to 68 mm.); h. f. ♂ 16.3 mm. (11 meas., range 15 to 18 mm.), ♀ 15.6 mm. (9 meas., range 13.5 to 16.5 mm.); ear ♂ 10.8 mm. (11 meas., range 9 to 12 mm.), ♀ 11.9 mm. (9 meas., range 10 to 13 mm.); weight ♂ 9.1 g. (8 weighed, range 7 to 12 g.), ♀ 9.3 g. (3 weighed, range 7 to 12 g.).

BREEDING. No data available.

HABITAT. Caught in bamboo, moist montane forest and at edge of sedge swamp.

BIOLOGY. No information available.

Mus minutoides Smith

1834. *Mus minutoides* Smith, *S. Afr. quart. J.* 2 : 157. Cape Town [33° 56' S. 18° 28' E.].

1910. *Leggada grata* Thomas & Wroughton, *Trans. zool. Soc. Lond.* 19 : 507. Mubuku Valley, Toro.

1911. *Mus tenellus* Heller, *Smithson. misc. Coll.* 56 : 6. Rhino Camp, West Nile.

1911. *Mus bellus* Heller, *Smithson. misc. Coll.* 56 : 8. Rhino Camp, West Nile.

1911. *Mus musculoides* Heller, *Smithson. misc. Coll.* 56 : 28. Kabulamuliro, Buganda.

DESCRIPTION. Small species with pure white underside.

DISTRIBUTION. Paraa, Acholi; Congo Road, Kalinzu Forest, Lutoto, Maramagambo Forest, north of Maramagambo Forest, Ankole; Kabanyolo, Kabulamuliro, Kampala, Kikandwa, Kikonda, Kisimbiri, Kisingo, Lunyo, Mpanga Forest, Nabugabo, Nkyanuna, Buganda; Butiaba, Hoima, Kajuia, Masindi, Bunyoro; Lotome, Moroto, Nabilatuk, Karamoja; Echuya Swamp, Kigezi; Crater Track, Mweya, Mihunga, Mubuku Valley, Toro; Rhino Camp, Wadelai, West Nile. Text-fig. 14.

MEASUREMENTS. H. & b. ♂ 60.6 mm. (13 meas., range 45 to 76 mm.), ♀ 60.8 mm. (11 meas., range 49 to 77 mm.); tail ♂ 43.8 mm. (12 meas., range 35 to 54 mm.), ♀ 45.5 mm. (11 meas., range 35 to 63 mm.); h. f. ♂ 13.1 mm. (10 meas., range 12 to



FIG. 14. Distribution of *Mus* spp.

14.5 mm.), ♀ 13.1 mm. (8 meas., range 12 to 14 mm.); ear ♂ 9.7 mm. (9 meas., range 8 to 11 mm.), ♀ 8.7 mm. (8 meas., range 7 to 10 mm.); weight ♂ 6.4 g. (7 weighed, range 4 to 10 g.), ♀ 5.9 g. (9 weighed, range 2.5 to 10 g.).

BREEDING. Foetuses (1 × 5) Jul. Mpanga, (1 × 4) Aug. Maramagambo Forest, (1 × 4) Nov. Moroto. Allen & Loveridge (1942) report (1 × 7) foetuses and groups of 3, 6, 7 and 8 blind nestlings in Tanzania. Ansell (1960) reports (1 × 3) well developed foetuses and groups of 4 and 5 juveniles from Zambia.

HABITAT. Very varied ranging from dry sandy ground to forest.

BIOLOGY. Nocturnal. Makes shallow burrows with a bed of grass in the bottom. Predators include the brown house snake (*Boaedon lineatus*), the burrowing viper (*Atractaspis bibroni*), mamba (*Dendraspis* sp.) and viper (*Atheris nischei*). Omnivorous, the stomachs containing leaves, seeds and insect remains.

Mus triton (Thomas)

1909. *Leggada triton* Thomas *Ann. Mag. nat. Hist.*, (8) 4 : 548. Kirui, southern foothills of Mt. Elgon, Kenya [approximately 0° 45' N. 34° 40' E.].

DESCRIPTION. Differs from *Mus bufo* in the belly fur not being tinged with buff and the tail being appreciably shorter.

DISTRIBUTION. Kichwamba, Lutoto, north of Maramagambo Forest, Ankole; Entebbe, Kikandwa, Kisimbiri, Masaka, Buganda; Siroko Valley, Bugisu; Masindi Port, Bunyoró; Echuya Swamp, Ingezi, Kigezi; north Ruwenzori, Toro. Text-fig. 14.

MEASUREMENTS. H. & b. ♂ 78.3 mm. (11 meas., range 57 to 93 mm.), ♀ 73.8 mm. (10 meas., range 66 to 85 mm.); tail ♂ 48.5 mm. (10 meas., range 42 to 53 mm.), ♀ 46.8 mm. (9 meas., range 44 to 48 mm.); h. f. ♂ 15.4 mm. (11 meas., range 14 to 19 mm.), ♀ 14.9 mm. (9 meas., range 14 to 16 mm.); ear ♂ 10.6 mm. (9 meas., range 9 to 12 mm.), ♀ 10.7 mm. (9 meas., range 9 to 11 mm.); weight ♂ 11.4 g. (9 weighed, range 10 to 13 g.), ♀ 9.4 g. (9 weighed, range 7 to 13 g.).

BREEDING. No data available.

HABITAT. Found in grassland, heath and scrub principally in wetter areas.

BIOLOGY. Nocturnal. Makes nests of both fine and coarse rootlets and leaves of grass. Loveridge (1953) reports that the brown house snake (*Boaedon lineatus*) is a predator.

Genus *LOPHUROMYS* Peters. Harsh-furred Mice

1866. *Lasiomys* Peters, *Mber. preuss. Akad. Wiss. Berl.* 1866 : 409. Genotype = *Mus sikapusi* Temminck. Not *Lasiomys* 1854, in Mammalia (Octodontidae).

1874. *Lophuromys* Peters, *Mber. preuss. Akad. Wiss. Berl.* 1874 : 234. *Lasiomys afer* Peters = *Mus sikapusi* Temminck. To replace *Lasiomys* Peters, preoccupied.

The texture of the fur is very characteristic. It is smooth, sleek, stiff and brush-like. This is particularly obvious when the fur is stroked against the lie of the hairs.

Dorsally the fur is red to brown whilst the underside is rather paler in colour. Ellerman, Morrison-Scott & Hayman (1953) list two species of short-tailed *Lophuromys* both of which occur in Uganda. In addition, two species of long-tailed *Lophuromys* have been described from mountainous regions of western Uganda but as they are obviously very similar they are included here under *L. woosnami* which is the prior name.

1	Tail short, usually less than 80 mm.	.	.	.	.	.	.	.	.	2
	Tail long, usually more than 100 mm.	.	.	.	.	.	.	.	.	<i>L. woosnami</i>
2	Fur finely speckled . . . . .	.	.	.	.	.	.	.	.	<i>L. flavopunctatus</i>
	Fur not speckled . . . . .	.	.	.	.	.	.	.	.	<i>L. sikapusi</i>

Lophuromys flavopunctatus Thomas

1888. *Lophuromys flavo-punctatus* Thomas, *Proc. zool. Soc. Lond.* **1888**: 14. Shoa, Ethiopia (probably obtained at Ankober [9° 32' N. 39° 43' E.], Thomas, 1903, *Proc. zool. Soc. Lond.*, **1902**: 314).

1892. *Mus aquilus* True, *Proc. U.S. nat. Mus.*, **15**: 460. Kilimanjaro, Tanzania [3° 00' S. 37° 25' E.].

DESCRIPTION. Dorsal fur dark brown-red speckled with yellow or buff. Belly buff washed with red, overall effect buffy-pink.

DISTRIBUTION. Burumba, Lutoto, Kalinzu and Maramagambo Forests, between Rwempuno and Kaizi Rivers, Ankole; Entebbe, Kabanyolo, Kabulamuliro, Kampala, Kikonda, Kisingo, Lialo, Mabira Forest, Nabugabo, Nalweyo, Zika Forest, Buganda; Hoima, Bunyoro; Echuya Forest, Echuya Swamp, Impenetrable Forest, Nyakabande, Kigezi; Bundibugyo, Mihunga, Mpanga Forest, Mubuku Valley, Toro; Rhino Camp, West Nile. Text-fig. 15.

MEASUREMENTS. H. & b. ♂ 125.3 mm. (18 meas., range 117 to 141 mm.), ♀ 125.0 mm. (20 meas., range 112 to 144 mm.); tail ♂ 62.8 mm. (17 meas., range 46 to 69 mm.), ♀ 62.6 mm. (19 meas., range 55 to 94 mm.); h. f. ♂ 20.3 mm. (17 meas., range 19 to 21 mm.), ♀ 20.1 mm. (18 meas., range 18 to 21 mm.); ear ♂ 15.2 mm. (15 meas., 13 to 17 mm.), ♀ 15.5 mm. (18 meas., range 14 to 18 mm.); weight ♂ 52.0 g. (18 weighed, range 40 to 62 g.), ♀ 46.1 g. (18 weighed, range 36 to 56 g.).

BREEDING. Foetuses (2 × 3) Jun. Entebbe; (4 × 2) Sep. Echuya. Embryos near full term weigh 4-5 g. Ansell (1960) reports 3 embryos from Zambia. Litter size 1 to 4 (average 2.4) of 43 gravid females examined in Malawi (Hanney, 1964). Allen & Loveridge (1942) report foetuses (1 × 4) from Tanzania and (1 × 3) from Congo.

HABITAT. Moist situations in scrub and forest; recorded at altitudes up to 12,000 ft.

BIOLOGY. Diurnal and nocturnal. Omnivorous, mainly arthropods; slugs, snails, seeds, worms, frogs or toads and birds also recorded. Nests at base of grass tussocks (Hanney, 1964). Numerous scars on back of Mabira specimens.

Lophuromys sikapusi Temminck

1853. *Mus sikapusi* Temminck, *Esq. Zool. Cote de Guine* : 160. Dabacrom, Ghana [$7^{\circ} 40' N$, $2^{\circ} 58' W$].

1911. *Lophuromys pyrrhus* Heller, *Smithson, misc. Coll.* 56 : 10. Rhino Camp, West Nile.

DESCRIPTION. Dorsal fur a rich red-brown without any form of speckling. Underside usually a richer red than *L. flavopunctatus*. Tail short.

DISTRIBUTION. Kagambah, Kichwamba, between Rwempuno and Kaizi Rivers, Rutanda, Ankole ; Entebbe, Kampala, Mpanga Forest, Buganda ; Bubungi,



FIG. 15. Distribution of *Lophuromys* spp.

Lwakaka, Bugisu ; Butiaba, Bunyoro ; Jinja, Busoga ; Nyalasanje, Kigezi ; Moyo, Madi ; Serere, Teso ; Bwamba, Crater Track, Kamulikwezi Swamp, Fort Portal, Ruwenzori, Wasa River, Toro ; Rhino Camp, West Nile. Text-fig. 15.

MEASUREMENTS. H. & b. ♂ 133.1 mm. (27 meas., range 100 to 153 mm.), ♀ 136.6 mm. (16 meas., range 105 to 159 mm.) ; tail ♂ 71.6 mm. (26 meas., range 49 to 91 mm.), ♀ 72.7 mm. (16 meas., range 56 to 82 mm.) ; h. f. ♂ 23.0 mm. (27 meas., range 20 to 25 mm.), ♀ 22.8 mm. (16 meas., range 21 to 24 mm.) ; ear ♂ 14.8 mm. (23 meas., range 12 to 17.5 mm.), ♀ 14.1 mm. (13 meas., range 12 to 16 mm.) ; weight ♂ 76.8 g. (20 weighed, range 50 to 104 g.), ♀ 79.0 g. (14 weighed, range 43 to 100 g.).

BREEDING. Foetuses (1 × 2) Aug. Kichwamba. Two ♀ lactating Jul. Q. E. P. Usually 2 to a litter (Watson, 1950).

HABITAT. Heavily grassed bush country.

BIOLOGY. Diurnal and nocturnal. Examination of contents of 37 stomachs suggests that ants form major food. Insectivorous.

Lophuromys woosnami Thomas

1906. *Lophuromys woosnami* Thomas, *Ann. Mag. nat. Hist.*, (7) 18 : 146. Mubuku Valley, Toro.

1911. *Lophuromys prittieii* Thomas, *Ann. Mag. nat. Hist.*, (8) 8 : 377. Mufumbiro region, Kigezi.

DESCRIPTION. Easily separated from the other two species by its relatively long tail. The dorsal fur is not as richly coloured as in the other species tending to be rather more grey-brown. The speckling is sparse or absent. Underside without trace of pink or red and much more grey to brown.

DISTRIBUTION. Echuya Swamp, Impenetrable Forest, Muhavura, Kigezi ; Mihunga, Mubuku Valley, north Ruwenzori, Toro. Text-fig. 15.

MEASUREMENTS. H. & b. ♂ 118.0 mm. (5 meas., range 114 to 126 mm.), ♀ 107.2 mm. (11 meas., range 84 to 123 mm.) ; tail ♂ 113.0 mm. (5 meas., range 110 to 117 mm.), ♀ 107.1 mm. (11 meas., range 97 to 118 mm.) ; h. f. ♂ 23.6 mm. (5 meas., range 22 to 25 mm.), ♀ 23.1 mm. (11 meas., range 22.5 to 26 mm.) ; ear ♂ 19.0 mm. (5 meas., range 19 to 23 mm.), ♀ 19.1 mm. (11 meas., range 17 to 22 mm.) ; weight ♂ 45 g. (1 weighed), ♀ 36.5 g. (7 weighed, range 23 to 48 g.).

BREEDING. Foetuses (1 × 2) Sep. Echuya ; (2 × 2) Oct., Impenetrable.

HABITAT. Obtained in moist situations in scrub and forest at altitudes of 6,000 to 8,200 feet.

Genus *ACOMYS* Geoffroy. Spiny Mice

1838. *Acomys* Geoffroy, *Ann. Sci. nat. Zool.* 10 : 126. Genotype, by monotypy, *Mus cahirinus* Desmarest.

The spiny mice are small mice characterized by having the hair of the dorsal surface converted into coarse spines. They inhabit arid semi-desert country. Two species

have been collected in Karamoja from apparently similar types of habitat. Tail hard and scaly. Incisors ungrooved.

Dorsal pelage uniform grey-brown not speckled	<i>A. percivali</i>
Dorsal pelage speckled light and dark brown	<i>A. wilsoni</i>

Acomys percivali Dollman

1911. *Acomys percivali* Dollman, *Ann. Mag. nat. Hist.*, (8) 8: 126. Chanler Falls, N. Guaso Nyiro, Kenya [$0^{\circ} 47' N.$ $38^{\circ} 03' E.$].

DESCRIPTION. Dorsal pelage uniform grey-brown, tail relatively long, hind foot large.

DISTRIBUTION. Kotido, Namalu, Karamoja. Text-fig. 16.

MEASUREMENTS. Two ♂ h. & b. 82 mm., 94 mm.; tail 67 mm., 84 mm.; h. f. 15 mm., 15 mm.; ear 11 mm., ?; weights 19 g., 5 g. Two ♀ h. & b. 93 mm., 74 mm.; tail 79 mm., 48 mm.; h. f. 14 mm., 14 mm.; ear 12 mm., 11 mm.; weights 33 g., 11 g.

BREEDING. Foetuses (1 × 1) Nov. Kotido.

HABITAT. Dry savanna, semi-desert.

BIOLOGY. No information available.

Acomys wilsoni Thomas

1892. *Acomys Wilsoni* Thomas, *Ann. Mag. nat. Hist.*, (6) 10: 22. Mombasa, Kenya [$4^{\circ} 3' S.$ $39^{\circ} 40' E.$].

DESCRIPTION. Dorsal pelage annulated light and dark brown; annulations may tend to disappear posteriorly. Tail short; hind foot small.

DISTRIBUTION. Amudat, Kachere, Lorengikipi, Lotome, Manimani, Moroto Forest, Nabilatuk, Karamoja. Text-fig. 16.

MEASUREMENTS. Two ♂ h. & b. 87 mm., 83 mm.; tail 43 mm., 45 mm.; h. f. 12 mm., 13 mm.; ear 10 mm., 10 mm.; weights, 22 g., 21 g. Three ♀ 96 mm., 86 mm., 84 mm.; tail 48 mm., 47 mm., 41 mm.; h. f. 13 mm., 14 mm., 13 mm.; ear 12 mm., 10 mm., 10 mm.; weights 25 g., 27 g., 19 g.

BREEDING. Foetuses (1 × 2) Oct. Nabilatuk, (1 × 1) Nov. Moroto, (1 × 3) Nov. Amudat.

HABITAT. Dry savanna semi-desert. Watson (1950) only found it in less arid parts or alongside rivers.

BIOLOGY. No information available.

Genus *URANOMYS* Dollman

1909. *Uranomys* Dollman, *Ann. Mag. nat. Hist.*, (8) 4:155. Genotype *Uranomys ruddi* Dollman.

Texture of fur brush-like ; hairs harsh and long measuring about 17 mm. Back grey-brown paling to buff on sides and on upper surfaces of limbs. Nasal region and head darker than back. Similar to *Lophuromys* but distinguished from it by the pure white backs to the hands and feet (in *Lophuromys* they are at least tinged with black or brown). In *Uranomys* the belly fur is white and in *Lophuromys* brown, orange, red or grey. Upper incisors are orthodont in *Lophuromys* and slightly proodont in *Uranomys*.



FIG. 16. Distribution of *Acomys percivali*, *A. wilsoni* and *Uranomys ruddi*.

Uranomys ruddi Dollman

1909. *Uranomys ruddi* Dollman, *Ann. Mag. nat. Hist.*, (8) 4 : 552. Kirui, southern foothills of Mt. Elgon, Kenya [approximately 0° 45' N. 34° 40' E.].
1911. *Uranomys ugandae* Heller, *Smithson, misc. Coll.* 56 : 12. Kikonda, Buganda.

DESCRIPTION. As for genus.

DISTRIBUTION. Kikonda, Buganda ; Lwakaka, Bugisu ; Budama, Bukedi. Text-fig. 16.

MEASUREMENTS. Two ♀ h. & b. 104 mm., 95 mm. ; tail 50 mm., 66 mm. ; h. f. 17 mm., 16 mm. ; ear 15 mm., 13 mm.

BREEDING. No information available.

HABITAT. No information available.

BIOLOGY. No information available.

Genus *SACCOSTOMUS* Peters. Pouched Mice

1846. *Saccostomus* Peters, *Ber. Verh. preuss. Akad. Wiss. Berl.* 1846 : 258. Genotype, by monotypy, *Saccostomus campestris* Peters.

Medium sized with long, soft, silky fur and a relatively short tail. Cheek pouches present. Grey dorsally with brown tinge in some specimens ; paler on flanks ; belly hairs with white tips and slate bases. Ears small and hairy ; tail dark above, paler below. Backs of hands and feet white. Ellerman, Morrison-Scott & Hayman (1953) believe there is only one species in this genus.

Saccostomus campestris Peters

1846. *Saccostomus campestris* Peters, *Ber. Verh. preuss. Akad. Wiss. Berl.* 1846 : 258. Tete, Portugese East Africa [16° 10' S. 33° 35' E.].
1936. *Saccostomus cricetulus* Allen & Lawrence, *Bull. Mus. comp. Zool. Harv.* 79 : 100. South bank of Greek River, Sebei.

DESCRIPTION. As for genus.

DISTRIBUTION. Amudat, Lotome, Moroto, Nabilatuk, Karamoja ; Greek River, Sebei. Text-fig. 17.

MEASUREMENTS. H. & b. ♂ 116.0 mm. (4 meas., range 94 to 130 mm.), ♀ 144.9 mm. (7 meas., 127 to 157 mm.) ; tail ♂ 45.3 mm. (4 meas., range 34 to 55 mm.), ♀ 53.9 mm. (7 meas., range 50 to 58 mm.) ; h. f. ♂ 21.0 mm. (4 meas., range 19 to 25 mm.), ♀ 21.9 mm. (7 meas., range 21 to 22 mm.) ; ear ♂ 18.3 mm. (4 meas., range 14 to 25 mm.), 18.3 mm. (7 meas., range 16 to 20 mm.) ; weight ♂, 2 weighed, 24 g., 34 g., ♀ 65.2 g. (6 weighed, range 41 to 84 g.).

BREEDING. Foetuses (1 × 7) Nov. Amudat. Ansell (1960) reports (1 × 7, 1 × 6) from Zambia and Shortridge (1934) (1 × 8) from South West Africa.

HABITAT. Dry savanna. Attracted to cultivated areas.

BIOLOGY. Nocturnal, very slow moving. From contents of cheek pouches food apparently largely of seeds, grain, fruits and also occasionally, insects. Lives in burrows.

Genus *CRICETOMYS* Waterhouse. Giant Rats

1840. *Cricetomys* Waterhouse, *Proc. zool. Soc. Lond.* 1840 : 2. As a subgenus of *Mus* Linnaeus ; genotype, by original designation, *Cricetomys gambianus* Waterhouse.

Very large rat with head-and-body length usually exceeding 300 mm. The tail is longer than the head and body ; it has a dark proximal portion and a white distal portion. Cheek pouches are present.



FIG. 17. Distribution of *Saccostomus campestris* and *Cricetomys gambianus*.

Cricetomys gambianus Waterhouse

1840. *Cricetomys gambianus* Waterhouse, *Proc. zool Soc. Lond.* 1840: 2. River Gambia, West Africa [13° 30' N. 13° 30'–16° 40' W.].

DESCRIPTION. As for genus.

DISTRIBUTION. Aiago River, Fort Patigo, Acholi; Kampala, Mabira Forest, Malabigambo Forest, Buganda; "Bunyoro"; Jinja, Busoga; Moroto, Namalu, Karamoja; Mt. Sabinio, Kigezi; Mt. Elgon, Sebei; Ngora Rest House, Ongino, Serere, near Soroti, Teso; Bundibugyo, Mihunga, Mongiro, Mubuku Valley, Toro. Text-fig. 17.

MEASUREMENTS. Two ♂ h. & b. 350 mm., 350 mm.; tail 380 mm., 418 mm.; h. f. 70 mm., 72 mm.; ear 37 mm., 42 mm. Two ♀ h. & b. 335 mm., 330 mm.; tail 370 mm., 390 mm.; h. f. 66 mm., 66 mm.; ear ? mm., 42 mm.; weight 910 g., ?.

BREEDING. Foetuses (1 × 1) Mt. Sabinio (Hopkins MS.); (1 × 1) Congo (Misonne, 1963); (1 × 4) Zambia (Ansell, 1960).

HABITAT. Ubiquitous, being found in rain forest, mountain forest, gallery forest and very dry savanna.

BIOLOGY. Strictly nocturnal. Herbivorous, feeding mainly on seeds of trees. They live in deep burrows in the ground and do serious damage to agriculture. It is reported that they often climb trees and shrubs in search of fruit. Infected with an ectoparasitic Dermapteran (*Hemimerus talpoides* Walker) peculiar to itself.

Subfamily **DENDROMURINAE** Allen

1939. Dendromurinae Allen, *Bull. Mus. comp. Zool. Harv.* 83: 349.

Genus **DENDROMUS** Smith. African Tree Mice

1829. *Dendromus* Smith, *Zool. J.* 4: 438. Genotype, by original designation, *Dendromus typus* Smith = *Mus mesomelas* Brants.

1830. *Dendromys* Fischer, *Synop. Anim. Add.*: 658. Substitute for *Dendromus* Smith.

1916. *Poemys* Thomas, *Ann. Mag. nat. Hist.*, (8) 18: 238. As a subgenus of *Dendromus* Smith; type, by original designation, *Dendromus melanotis* Smith.

Small mice. The fore feet have three well-developed digits only; hind feet narrow with very short hallux and fifth digit nearly as long as second. There is often a single dark, dorsal stripe along the length of the body. The upper incisors are grooved. Bohmann's (1942) revision of the genus has been adopted together with Ellerman, Morrison-Scott & Hayman's (1953) use of the specific name *mystacalis* in place of *pumilio*.

- | | | |
|---|--|----------------------|
| 1 | No dorsal stripe | <i>D. mystacalis</i> |
| | Dark dorsal stripe running the length of the body | 2 |
| 2 | Small size; dorsal stripe broken to form spot on the head; tail shorter than h. & b.; hind foot less than 18 mm. | <i>D. melanotis</i> |
| | Larger size; dorsal stripe not broken to form a spot on the head; tail longer than h. & b.; hind foot more than 19 mm. | <i>D. mesomelas</i> |

Dendromus melanotis Smith

1834. *Dendromus melanotis* Smith, *S. Afr. quart. J.* **2**: 158. Near "Port Natal" = Durban, Natal [29° 53' S. 31° 00' E.].

1911. *Dendromus spectabilis* Heller, *Smithson. misc. Coll.* **56**: 3. Rhino Camp, West Nile.

DESCRIPTION. Colour of upper parts light brown, gradually turning a grey-brown on the sides to a pale grey on the under parts. A wide black median dorsal stripe runs from the shoulders to the base of the tail, widest anteriorly and narrowing gradually posteriorly. A median black spot occurs on the forehead between the ears and eyes. At the anterior base of the ears are a few white hairs and a larger white patch just below the ear. Hind foot less than 18 mm.

DISTRIBUTION. Hoima, Bunyoro; Mweya, Toro; Rhino Camp, West Nile. Text-fig. 18.

MEASUREMENTS. Three ♂ h. & b. 67 mm., 73 mm., 61 mm.; tail 65 mm., 68 mm., ?; h. f. 16 mm., 17 mm., 16 mm.; ear 13 mm., 12 mm., 11 mm.; weight 5 g., 7 g., 6 g. Two ♀ h. & b. 91 mm., 56 mm.; tail 67 mm., 64 mm.; h. f. 16 mm., 16 mm.; ear 10 mm., ?; weight 8 g., 7 g.

BREEDING. Foetuses (1 × 3) Jul. Mweya. Ansell (1960) reports (4 × 3, 4 × 4, 1 × 5, 4 × 6) from Zambia.

HABITAT. Found in short herbs where *D. mystacalis* is uncommon. Typically in dry savanna.

BIOLOGY. Nocturnal. Herbivorous, although Ansell (1960) reports that they also eat insects. Apparently nest in burrows in the ground in Zambia but in the Congo, Misonne (1963) reports that they build nests in herbs at heights ranging from 10 cm. to 1 m. above the ground. (Further information under *D. mystacalis*.)

Dendromus mesomelas (Brants)

1827. *Mus mesomelas* Brants, *Het Geslacht der Miuzen*: 122. "Near Zondags River" (Sundays River, just east of Port Elizabeth, Eastern Cape Province) [approximately 33° 45' S. 25° 45' E.].

DESCRIPTION. Colour of upper parts light brown, the sides not grey-brown as in *D. melanotis*. Dorsal stripe distinctly narrower than in *D. melanotis*. No white patch as base of ears. Tail longer than head and body. Hind foot longer than 19 mm.

DISTRIBUTION. Echuya Swamp, Kumba, Kigezi; Mubuku Valley, Toro. Text-fig. 18.

MEASUREMENTS. H. & b. ♂ 80.8 mm. (4 meas., range 76 to 87 mm.), ♀ 81.3 mm. (3 meas., range 78 to 87 mm.); tail ♂ 89.8 mm. (4 meas., range 86 to 93 mm.), ♀ 97.0 mm. (3 meas., range 93 to 102 mm.); h. f. ♂ 21.0 mm. (4 meas., range 20 to 22 mm.), ♀ 21.0 mm. (3 meas., all 21 mm.); ear ♂ 12.5 mm. (4 meas., range 11 to 15 mm.), ♀ 13.0 mm. (3 meas., range 12 to 14 mm.); weight ♂ 13.7 g. (3 weighed, range 11 to 15 mm.), ♀ two weighed, 13 g., 15 g.

BREEDING. Allen & Loveridge (1942) record litters of 3 and 4 young.

HABITAT. Found in swamp and associated vegetation in Kigezi.

BIOLOGY. Ansell (1960) reports that they feed largely on grass seeds but are to some extent insectivorous. Live in tall grass in which they are arboreal; also semi-terrestrial. Misonne (1963) claims that they are often caught around villages in the Congo. Apparently less communal than *D. mystacalis* and *D. melanotis*.



FIG. 18. Distribution of *Dendromus* spp.

Dendromus mystacalis Heuglin

1863. *Dendromus mystacalis* Heuglin, *Nova Acta Leop. Carol.* **30**, art. 2. suppl. : 5. Ifag, east of Lake Tana, Ethiopia [$12^{\circ} 15' N.$ $37^{\circ} 45' E.$].

1911. *Dendromus lineatus* Heller, *Smithson, misc. Coll.* **56** : 4. Rhino Camp, West Nile.

DESCRIPTION. No dorsal stripe running the length of the body. Tail about one and a third times length of the head and body.

DISTRIBUTION. Buligi, Kampala, Kawenge, Buganda ; Budadin Camp, Bugisu ; Hoima, Kajua, Masindi, Bunyoro ; Kamchuru, Karamoja ; Sebei Camp, Sebei ; Bubukwanga, Bugoye, Bumatta, Bummaddu, Bundibugyo, Bundimali, Fort Portal, Humya, Kyabombo, Mihunga, Tokwe, Toro ; Rhino Camp, West Nile. Text-fig. 18.

MEASUREMENTS. H. & b. ♂ 69.2 mm. (20 meas., range 59 to 68 mm.), ♀ 61.7 mm. (6 meas., range 50 to 73 mm.) ; tail ♂ 90.4 mm. (20 meas., range 81 to 101 mm.), ♀ 86.0 mm. (6 meas., range 75 to 95 mm.) ; h. f. ♂ 16.6 mm. (21 meas., range 14 to 19 mm.), ♀ 16.2 mm. (6 meas., range 16 to 17 mm.) ; ear ♂ 12.8 mm. (21 meas., range 10 to 14 mm.), ♀ 12.3 mm. (6 meas., range 10 to 13 mm.) ; weight ♂ 8.7 g. (15 weighed, range 7.5 to 10.5 g.), ♀ 7.6 g. (4 weighed, range 6.5 to 9 g.).

BREEDING. Normally 3 in a litter, occasionally 4 (Hopkins MS.). Foetuses (1 × 5) in Zambia (Ansell, 1960). Three naked, blind nestlings, Jan. Mihunga ; 4 juveniles Jan. Bugoye. Seven naked nestlings and 4 furred with eyes open in Tanzania (Allen & Loveridge, 1942). Juveniles in Zambia : (5 × 4, 1 × 6) (Ansell, 1960).

HABITAT. Common in banana shambas where the nests are usually among the leaf-bases (Hopkins MS.). Also in grass and amongst herbage.

BIOLOGY. Nocturnal and herbivorous. Quarrelsome and aggressive animals. *D. mystacalis* and *D. melanotis* fight constantly when placed together ; in the course of the fighting the subordinate animal puts itself on its back and defends itself ; *D. mesomelas* is the less aggressive. *Dendromus* walks with the first and fifth digits at right angles. *Dendromus* dominates *Mus minutoides* and *M. triton* when they are together. They climb easily, the tail is prehensile and their light weight allows them to scale the lighter herbage, where they may construct nests.

Genus *STEATOMYS* Peters. Fat Mice

1846. *Steatomys* Peters, *Ber. Verh. preuss. Akad. Wiss. Berl.* **1846** : 258. Genotype, by monotypy, *Steatomys pratensis* Peters.

The fat mice are small with relatively short tails. Their plump appearance is due to a layer of fat beneath the skin. Upper incisors grooved. Fur of the back light brown-fawn ; sharp line of demarcation between flanks and belly ; hairs of the latter pure white. Hairs of back grey with brown tips. Backs of hands and feet white. Tail brown above, white below, moderately haired.

Steatomys parvus Rhoads

1896. *Steatomys parvus* Rhoads, *Proc. Acad. nat. Sci. Philad.* 1896: 529. Reshiat, Lake Rudolf, Ethiopia [approximately 4° 33' N. 36° 00' E.].

DESCRIPTION. As for genus.

DISTRIBUTION. Lotome, Nabilatuk, Napyananya, Karamoja. Text-fig. 19.

MEASUREMENTS. Two ♂ h. & b. 59 mm., 60 mm.; tail 37 mm., 35 mm.; h. f. 13 mm., 15 mm.; ear 10 mm., 13 mm.; weight 5 g., ?.

BREEDING. No information available.

HABITAT. Dry savanna, semi-desert.

BIOLOGY. No information available.

Genus *DEOMYS* Thomas

1888. *Deomys* Thomas, *Proc. zool. Soc. Lond.* 1888: 130. Genotype *Deomys ferrugineus* Thomas.

Similar to *Grammomys* with rufous upperside, white underside and pencilled tail 1.5 times head-and-body length. Differences include the presence of stiff fur along the back (soft in *Grammomys*), two faint grooves on the upper incisors (none in *Grammomys*), long and narrow snout of the skull (short and broad in *Grammomys*) and elongate feet (*Grammomys* short).

Deomys ferrugineus Thomas

1888. *Deomys ferrugineus* Thomas, *Proc. zool. Soc. Lond.* 1888: 130. Lower Congo.

DESCRIPTION. As for genus.

DISTRIBUTION. Bwamba Forest, Toro. Text-fig. 19.

MEASUREMENTS. One ♀ h. & b. 122 mm.; tail 191 mm.; h. f. 33 mm.; ear 24 mm.

BREEDING. Foetuses (2 × 2) in Congo (Hatt, 1940).

HABITAT. In the Congo typical of primary forest; does not penetrate *Cynometra* or transitional forest; rare (Misonne, 1963).

BIOLOGY. Eight stomachs examined of animals caught in the Congo contained grasshoppers, ants, termites and flesh resembling that of a rat (Hatt, 1940).

Genus *DELANYMYS* Hayman. Delany's Swamp-mice

1962. *Delanymys* Hayman, *Rev. Zool. Bot. afr.* 65: 129. Genotype, by original designation, *Delanymys brooksi* Hayman.

A very small mouse with a relatively long tail. Front feet very small, hind feet long and narrow. Tail thinly covered with short stiff hairs. Fur very dense and soft with stout guard hairs on dorsal surface. Basal two-thirds of dorsal and ventral hairs slate grey; dorsally, tips of hairs russet or hazel; ventrally, warm buff. Black patch between each eye and nostril.

Delanymys brooksi Hayman

1962. *Delanymys brooksi* Hayman, *Rev. Zool. Bot. afr.* **65**: 132. Echuya Swamp, Kigezi.

DESCRIPTION. As for genus.

DISTRIBUTION. Echuya Swamp, Kigezi. Text-fig. 19.

MEASUREMENTS. One ♂ h. & b. 57 mm. ; tail 100 mm. ; h. f. 17 mm. ; ear 10 mm. ; weight 5 g.

BREEDING. No information available.



FIG. 19. Distribution of *Steatomys parvus*, *Deomys ferrugineus* and *Delanymys brooksi*.

HABITAT. Sedge swamp in bamboo and montane forest. Occurs in similar habitat in the Congo (Hayman, 1962).

BIOLOGY. No information available.

Subfamily OTOMYINAE Thomas

1897. *Otomyinae* Thomas, *Proc. zool. Soc. Lond.* **1892**: 1017.

Genus OTOMYS Cuvier. Swamp Rats

1823. *Otomys* Cuvier, *Dents. Mamm.*: 168. Genotype, by subsequent designation (Sclater, 1899, *Ann. S. Afr. Mus.* **1**: 195), *Otomys irroratus* (Brants).

1918. *Anchotomys* Thomas, *Ann. Mag. nat. Hist.*, (9) **2**: 204. As a subgenus of *Otomys* Cuvier; type, by monotypy and original designation, *Euryotis anchietae* Bocage.

The genus *Otomys* is easy to identify as both upper and lower incisors are deeply grooved. The fur is long, thick and soft. A well haired tail appreciably shorter than head-and-body length. The ears are small and the face blunt. The colour is very variable. Swamp rat is probably a misnomer as they can occur in dry situations some distance from water. Many species of this genus have been described although according to Bohmann (1952) there are probably only three occurring in Uganda. In making specific identifications reference has to be made to the number of transverse laminae on the third upper molars. The systematics of this genus are in need of further investigation.

1	Lower incisors with two deep grooves	<i>O. typus</i>
	Lower incisors with a deep outer groove and a shallow inner groove	2
2	Five or six lamellae on third upper molar	<i>O. denti</i>
	Seven lamellae on third upper molar	<i>O. irroratus</i>

Otomys denti Thomas

1906. *Otomys denti* Thomas, *Ann. Mag. nat. Hist.*, (7) **18**: 142. Ruwenzori East, Toro.

1915. *Otomys kempi* Dollman, *Ann. Mag. nat. Hist.* (8) **15**: 152. Burunga, Mt. Mikeno, Congo [1° 28' S. 29° 25' E.].

DESCRIPTION. Dark coloured; dorsal surface brown-black speckled with copper buff. Backs of hands and feet blackish brown. Ventral surface slaty-black slightly speckled with buff. Tail black above and below. Lower incisor with a shallow inner groove, five or six transverse lamellae on third upper molar.

DISTRIBUTION. Mabira Forest, Buganda; Echuya Swamp and Forest, Kigezi; Kibale Forest, Mubuku Valley, Toro. Text-fig. 20.

MEASUREMENTS. Two ♂ h. & b. 170 mm., 150 mm.; tail 96 mm., 95 mm.; h. f. 26 mm., 27 mm.; ear 23 mm., 21 mm.; weight 125 g., ?. Three ♀ h. & b. 167 mm., 167 mm., 157 mm.; tail 94 mm., 94 mm., 89 mm.; h. f. 26 mm., 27 mm., 27 mm.; ear 23 mm., 25 mm., 21 mm.; weight 120 g., ?, ?.

BREEDING. Litters of two (Misonne, 1963).

HABITAT. Difficult to define in view of the limited number of records but apparently occurs in mixed vegetation and forest at various elevations.

BIOLOGY. Preyed on by harrier (*Circus macrourus*), grass owl (*Tyto capensis*) and leopard in Malawi (Loveridge, 1953).

***Otomys irroratus* (Brants)**

1827. *Euryotis irroratus* Brants, *Het Geslacht der Muizen* : 94. Uitenhage, Cape of Good Hope [33° 41' S. 25° 25' E.].

1915. *Otomys tropicalis* Dollman, *Ann. Mag. nat. Hist.*, (8) 15 : 157. Mt. Kenya, Kenya [0° 08' S. 37° 15' E.].

1915. *Otomys rubeculus* Dollman, *Ann. Mag. nat. Hist.*, (8) 15 : 161. Kagambah, Ankole.



FIG. 20. Distribution of *Otomys* spp.

DESCRIPTION. Colour variable but not usually as dark as *O. denti*. Distinguished from the other species on tooth characters.

DISTRIBUTION. Gulu, Acholi; Burumba, between Rwempuno and Kaizi Rivers, Ankole; Bugala Island, Kampala, Masaka, Mbanga Forest, Mubende, Buganda; Beelrungi, Bubungi, Likima, Mbale, Bugisu; "Bunyoro"; Echuya Swamp, Kiduha, Kumba, Kigezi; Fort Portal, Humya, Toro. Kasiba. Text-fig. 20.

MEASUREMENTS. H. & b. ♂ 168.1 mm. (18 meas., range 124 to 201 mm.), ♀ 164.7 mm. (14 meas., range 139 to 183 mm.); tail ♂ 93.0 mm. (18 meas., range 83 to 112 mm.), ♀ 84.4 mm. (14 meas., range 69 to 96 mm.); h. f. ♂ 29.5 mm. (18 meas., range 27 to 34 mm.), ♀ 28.3 mm. (14 meas., range 26 to 30 mm.); ear ♂ 22.0 mm. (18 meas., range 20 to 25 mm.), ♀ 22.0 mm. (13 meas., range 20 to 25 mm.); weight ♂ 95 g., 110 g. (only 2 weighed), ♀ 101.3 g. (6 weighed, range 60 to 120 g.).

BREEDING. Foetuses (1 × 2) Jul. Mbanga Forest; (1 × 2) between Kaizi and Rwempuno Rivers, Aug.; (1 × 1) Oct. Echuya Swamp. One ♀ from Echuya lactating in Sep. Two embryos obtained in August weighed 25 g. Apparently no fixed breeding season in Zambia (Ansell, 1960); litter size 2 to 3. Hair and incisors erupted at birth. Litter size 2 to 4 (never more) in South West Africa where the young have been found in rough grass nests in dense reed-growth (Shortridge, 1934).

HABITAT. Grassland, scrub where herbage is fairly dense. Has been obtained at relatively large distances from water.

BIOLOGY. Herbivorous; stomachs of nine animals contained leaves and stems.

Otomys typus (Heuglin)

1877. *Oreomys typus* Heuglin, *Reise in Nordost. Afrika* 2: 77. Highlands of Simyen, Ethiopia [13°-14° N. 38°-39° E.].

1891. *Otomys jacksoni* Thomas, *Ann. Mag. nat. Hist.*, (6) 7: 304. [Crater of] Mt. Elgon.

1906. *Otomys dartmouthi* Thomas, *Ann. Mag. nat. Hist.*, (7) 18: 141. Mubuku Valley, Toro.

DESCRIPTION. Similar to *O. irroratus* but separated on tooth characters.

DISTRIBUTION. Mudangi, Bugisu; Arugot (Mt. Elgon), Sebei; Mubuku Valley, Toro. Text-fig. 20.

MEASUREMENTS. H. & b. ♂ 142.3 mm. (4 meas., range 132 to 150 mm.), ♀ 140.0 mm. (4 meas., range 135 to 143 mm.); tail ♂ 91.0 mm. (4 meas., range 82 to 101 mm.), ♀ 80.5 mm. (4 meas., range 64 to 93 mm.); h. f. ♂ 26.3 mm. (4 meas., range 25 to 27 mm.), ♀ 24.6 mm. (4 meas., range 21 to 26.5 mm.); ear ♂ 24.3 mm. (4 meas., range 22.5 to 25 mm.), ♀ 23.7 mm. (3 meas., range 21 to 25 mm.). None weighed.

BREEDING. No information available.

HABITAT. Typically an animal of high altitudes occurring at over 11,000 feet on Mt. Elgon and over 12,000 feet on Ruwenzori. Occurs in *Senecio-Lobelia* zone (Misonne, 1963).

BIOLOGY. Apparently active in the early morning and evening. Does not dig burrows but lives in long tunnels under moss and *Sphagnum* (Misonne, 1963).

GAZETTEER

As much information as was obtained is given for places not located.

Adropi, West Nile	2° 48' N.	31° 15' E.
Aigo River, Acholi	2° 21' N.	31° 55' E.
Ajeluk, Teso	1° 30' N.	33° 50' E.
Amudat, Karamoja	1° 58' N.	34° 57' E.
Amuria, Teso	2° 01' N.	33° 38' E.
Anamuget, Karamoja	2° 25' N.	34° 30' E.
Arua, West Nile	3° 01' N.	30° 55' E.
Arugot, north-east Mt. Elgon, Sebei		not located
Asuya, Acholi	2° 57' N.	32° 36' E.
Awack, Acholi	2° 39' N.	33° 27' E.
Beelrunji, south Bugisu		not located
Benet, Sebei	1° 20' N.	34° 33' E.
Biso, Bunyoro	1° 45' N.	31° 25' E.
Bokora, Karamoja	2° 25' N.	34° 25' E.
Bubukwanga, Toro	0° 45' N.	30° 05' E.
Bubungi, Bugisu	1° 05' N.	34° 20' E.
Budadin Camp, Bugisu		not located
Budama, Bukedi	0° 40' N.	34° 03' E.
Budongo Forest, Bunyoro	1° 45' N.	31° 36' E.
Bugala Island, Buganda	0° 24' S.	32° 10' E.
Bugiongolo		not located
Bugoma Forest, Bunyoro	1° 15' N.	31° 00' E.
Bugoye, Toro	0° 17' N.	30° 07' E.
Buligi, Buganda	0° 27' N.	31° 53' E.
Bulisa, Bunyoro	2° 07' N.	31° 25' E.
Bumatta, Bwamba Co., Toro		not located
Bummaddu = Bumadu, Toro	0° 43' N.	30° 05' E.
Bundibugyo, Toro	0° 42' N.	30° 04' E.
Bundimali, Toro	0° 55' N.	30° 03' E.
Buruli Co., Buganda	1° 25' N.	32° 25' E.
Burumba, Ankole	1° 00' S.	30° 50' E.
Busia, Bukedi	0° 28' N.	34° 05' E.
Busingiro, Bunyoro	1° 44' N.	31° 28' E.
Butiaba, Bunyoro	1° 49' N.	31° 19' E.
Butiti, Toro	0° 39' N.	30° 32' E.
Buyobo, Bugisu	1° 10' N.	34° 17' E.
Bwamba Co., Toro	0° 55' N.	30° 03' E.
Bwamba Forest, Toro	0° 48' N.	30° 06' E.
Chagwe = Kyagwe Co., Buganda	0° 24' N.	32° 45' E.
Chua Co., Acholi	3° 20' N.	33° 05' E.
Congo Road (Q.E.P.) Ankole	0° 14' S.	29° 59' E.
Crater Track (Q.E.P.), Toro	0° 07' S.	29° 54' E.
Echuya Forest, Kigezi	1° 14' S.	29° 46' E.
Echuya Swamp, Kigezi	1° 14' S.	29° 46' E.
Elgon, Mt., Sebei	1° 08' N.	34° 33' E.
Entebbe, Buganda	0° 03' N.	32° 28' E.

Fadjao, Bunyoro	2° 15' N.	31° 40' E.
Fort Patiko = Baker's Fatiko, Acholi	3° 02' N.	32° 21' E.
Fort Portal, Toro	0° 40' N.	30° 18' E.
Gayaza, Ankole	0° 45' S.	30° 47' E.
Greek River, south bank, Sebei	1° 36' N.	34° 20' E.
Gulu, Acholi	2° 47' N.	32° 18' E.
Hakitengya, Toro	0° 45' N.	30° 05' E.
Hoima, Bunyoro	1° 25' N.	31° 21' E.
Humya = Humiya, Toro	0° 46' N.	30° 02' E.
Ilumia, Toro	0° 53' N.	30° 03' E.
Impenetrable Forest, Kigezi	1° 05' S.	29° 49' E.
Ingezi, Kigezi	1° 00' S.	29° 50' E.
Iriri, Teso	2° 06' N.	34° 12' E.
Isegero, Busoga	0° 50' N.	33° 35' E.
Isungu, Toro	0° 30' N.	30° 21' E.
Jinja, Busoga	0° 27' N.	33° 12' E.
Kabanyolo, Buganda	0° 27' N.	32° 36' E.
Kabaroni Camp, north Bugisu		not located
Kabula, Buganda	0° 22' S.	31° 10' E.
Kabulamuliro, Buganda	0° 42' N.	32° 13' E.
Kacheba, Lango		not located
Kacheri, Karamoja	3° 10' N.	33° 56' E.
Kagambah, Ankole	1° 00' S.	30° 15' E.
Kaizi River (Q.E.P.), Ankole	0° 25' S.	29° 51' E.
Kajansi, Buganda	0° 12' N.	32° 32' E.
Kajuia, Bunyoro		not located
Kakumiro, Buganda	0° 48' N.	31° 20' E.
Kalinzu Forest, Ankole	0° 22' S.	30° 07' E.
Kalule, Buganda	0° 38' N.	32° 32' E.
Kama Island, Busoga	0° 09' S.	33° 54' E.
Kamchuru, Karamoja	2° 40' N.	33° 35' E.
Kampala, Buganda	0° 19' N.	32° 35' E.
Kamulikwezi, Toro	0° 06' N.	30° 04' E.
Kamulikwezi Swamp, Toro	0° 05' N.	30° 09' E.
Kanaba Gap, Kigezi	1° 14' S.	29° 46' E.
Kapiri, Teso	1° 40' N.	33° 48' E.
Kasai Forest = Kasa Forest, Buganda	0° 13' N.	32° 02' E.
Kasiba		not located
Katwe, Toro	0° 08' S.	29° 52' E.
Kawenge = Kawempe, Buganda	0° 20' N.	32° 35' E.
Kibale Forest = Mpanga Forest, Toro	0° 33' N.	30° 24' E.
Kibandama, ? Kigezi		not located
Kibiro, Bunyoro	1° 41' N.	31° 15' E.
Kibusi = Kibuji, Lango	1° 53' N.	32° 23' E.
Kichwamba, Ankole	0° 14' S.	30° 06' E.
Kidoko, Bukedi	0° 52' N.	34° 07' E.
Kiduha, Kigezi	1° 15' S.	29° 41' E.
Kikandwa, Buganda	0° 37' N.	32° 07' E.

Kikonda, Buganda	1° 16' N.	31° 31' E.
Kilembe, Toro	0° 12' N.	30° 01' E.
Kimara, Toro	0° 50' N.	30° 15' E.
Kisimbiri, Buganda	0° 24' N.	32° 29' E.
Kisingo, Buganda	0° 45' N.	31° 57' E.
Kitgum, Acholi	3° 17' N.	32° 53' E.
Kokanjiro, Mt. Elgon		not located
Koki Co., Buganda	0° 43' S.	31° 20' E.
Kome Island, Buganda	0° 06' S.	32° 45' E.
Kotido, Karamoja	3° 01' N.	34° 06' E.
Kumba, Kigezi	1° 08' S.	29° 54' E.
Kyabombo, Toro		not located
Kyatwe, Toro	0° 27' N.	30° 13' E.
Lialo, Buganda	0° 53' N.	31° 57' E.
Likima, Bugisu		not located
Locihotome, Karamoja		not located
Login, West Nile		not located
Lorengikipi strm., Karamoja	2° 20' N.	33° 51' E.
Lotome, Karamoja	2° 24' N.	34° 31' E.
Lungo, Bukedi	0° 25' N.	34° 00' E.
Lunyo, Bugando	0° 03' N.	32° 28' E.
Lutoto, Ankole	0° 20' S.	30° 06' E.
Lwakaka = Lwakhakha, Bugisu	0° 48' N.	34° 22' E.
Mabira Forest, Buganda	0° 30' N.	33° 00' E.
Makoga, Toro	1° 01' N.	30° 22' E.
Malabigambo Forest, Buganda	0° 57' S.	31° 33' E.
Malera, Teso	1° 26' N.	34° 08' E.
Manimani, Karamoja	2° 19' N.	34° 39' E.
Maramagambo Forest (Q.E.P.) Ankole	0° 25' S.	29° 52' E.
Maramagambo Forest, north of (Q.E.P.), Ankole	0° 15' S.	30° 03' E.
Masaka, Buganda	0° 20' S.	31° 44' E.
Masindi, Bunyoro	1° 41' N.	31° 43' E.
Masindi Port, Bunyoro	1° 42' N.	32° 05' E.
Mbale, Bugisu	1° 04' N.	34° 11' E.
Mbanga Forest = Mpanga Forest, Buganda	0° 11' N.	32° 16' E.
Mbarara, Ankole	0° 37' S.	30° 39' E.
Mengo District, Buganda	0° 17' N.	32° 35' E.
Mfumbiro = Mufumbiro = Bufumbiro region, Kigezi	1° 22' S.	29° 39' E.
Mihunga, Toro	0° 22' N.	30° 03' E.
M.N.P. = Murchison Falls National Park in south-west Acholi and north west Bunyoro		
Mongi, Toro	0° 50' N.	30° 10' E.
Moroto, Karamoja	2° 33' N.	34° 39' E.
Moroto Forest, Karamoja	2° 33' N.	34° 44' E.
Moruita, Karamoja	1° 55' N.	34° 45' E.
Moyo, Madi	3° 39' N.	31° 42' E.
Mpanga Forest = Mbanga Forest, Buganda	0° 11' N.	32° 16' E.
Mpanga Forest = Kibale Forest, Toro	0° 33' N.	30° 24' E.
Mubende, Buganda	0° 35' N.	31° 23' E.
Mubuku Valley = Ruwenzori East, Toro	0° 22' N.	30° 01' E.
Mudangi, Bugisu	1° 10' N.	34° 29' E.

Muhavura Mt., Kigezi	1° 23' S.	29° 40' E.
Muhokya, Toro	0° 06' N.	30° 04' E.
Mulanda, Bukedi	0° 42' N.	34° 01' E.
Mweya, Toro	0° 11' S.	29° 54' E.
Nabilatuk, Karamoja	2° 03' N.	34° 35' E.
Nabugabo, Buganda	0° 22' S.	31° 53' E.
Nakiloro, Karamoja	2° 37' N.	34° 44' E.
Nakivali Lake, Ankole	0° 47' S.	30° 53' E.
Nalweyo, Buganda	1° 07' N.	31° 16' E.
Namalu, Karamoja	1° 49' N.	34° 38' E.
Napyananya, Karamoja	1° 52' N.	34° 35' E.
Nebbi, West Nile	2° 30' N.	31° 06' E.
Ngai, Lango	2° 30' N.	32° 29' E.
Ngal, West Nile	2° 26' N.	31° 29' E.
Ngora Rest House, Teso	1° 30' N.	33° 45' E.
Nkyanuna = Kyanuna, Buganda	0° 33' N.	32° 14' E.
Nyakabande, Kigezi	1° 18' S.	29° 43' E.
Nyalusanje, Kigezi	1° 00' S.	29° 58' E.
Offude, West Nile	3° 13' N.	30° 58' E.
Ongino, Teso	1° 33' N.	33° 59' E.
Packwack, West Nile	2° 27' N.	31° 29' E.
Pamdero (M.N.P.), Acholi	2° 22' N.	31° 40' E.
Paraa (M.N.P.), Acholi	2° 15' N.	31° 35' E.
Patiko = Baker's Fatiko, Acholi	3° 02' N.	37° 21' E.
Patong, River Naam		not located
Q.E.P. = Queen Elizabeth National Park in Kigezi, west Ankole and south Toro.		
Rhino Camp, West Nile	2° 58' N.	31° 24' E.
Rukiga Co., Kigezi	1° 05' S.	30° 02' E.
Rutanda (Q.E.P.), Ankole	0° 15' S.	30° 04' E.
Ruwenzori East = Mubuku Valley of British Museum		
Ruwenzori Expedition, 1906	0° 22' N.	30° 01' E.
Ruwenzori North, Toro	about 0° 40' N.	30° 10' E.
Ruwenzori South East, probably around Muhokya	0° 06' N.	30° 04' E.
Rwamachuchu = Rwamucucu, Kigezi	1° 10' S.	30° 02' E.
Rwempuno River (Q.E.P.), Ankole	0° 23' S.	29° 53' E.
Sabinio Mt., Kigezi	1° 23' S.	29° 36' E.
Salalira, Bugisu	1° 14' N.	34° 17' E.
Sara, Toro	0° 47' N.	30° 05' E.
Sebei Camp, Teso	1° 31' N.	33° 26' E.
Sipi, Bugisu	1° 20' N.	34° 14' E.
Siroko Valley, Bugisu	1° 21' N.	34° 14' E.
Soroti, Teso	1° 44' N.	33° 36' E.
Tokwe, Toro	0° 48' N.	30° 02' E.
Tororo, Bukedi	0° 41' N.	34° 10' E.
Usaga		not located

Vurra, West Nile	2° 53' N.	30° 53' E.
Wadelai, West Nile	2° 42' N.	31° 27' E.
Walasi, Bugisu	1° 11' N.	34° 13' E.
Wanka River, Toro	0° 51' N.	30° 16' E.
Wasa River, Toro	0° 47' N.	30° 15' E.
Yumbe, West Nile	3° 28' N.	31° 15' E.
Zika Forest, Buganda	0° 10' N.	32° 28' E.

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